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# PROCEEDINGS

OF THE

FORTY-FIRST ANNUAL CONVENTION

OF THE

# ONTARIO EDUCATIONAL ASSOCIATION

HELD IN

TORONTO

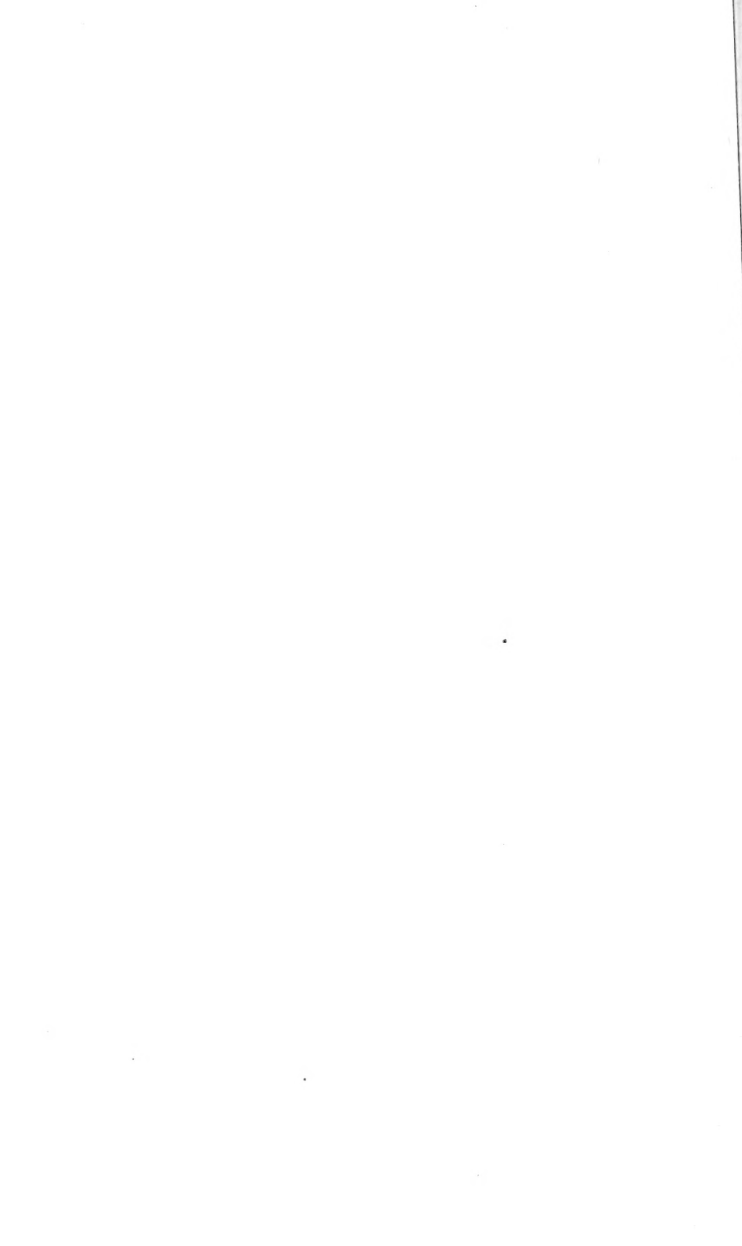
On the 1st, 2nd and 3rd April, 1902.

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TORONTO

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1902



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# Ontario Educational Association

1902-1903.

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<i>Secretary</i>	-	-	-	-	-	-	-	-	T. H. SMYTH, M.A., B.Sc., Toronto Junction.
<i>Directors</i>	-	-	-	-	-	-	-	-	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle; font-size: 3em; line-height: 1;">}</div> <div style="display: inline-block; vertical-align: middle;"> H. J. CRAWFORD, B.A., Toronto.  J. SQUAIR, B.A., Toronto.  R. A. THOMPSON, B.A., Hamilton.  E. L. HILL, B.A., Guelph. </div> </div>

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# PAST PRESIDENTS

OF THE

## Ontario Educational Association

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1861	-	-	-	-	-	T. J. ROBERTSON, M.A.
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1863-64-65	-	-	-	-	-	DANIEL WILSON, LL.D.
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1886	-	-	-	-	-	H. I. STRANG, B.A.
1887	-	-	-	-	-	JOSEPH H. SMITH.
1888	-	-	-	-	-	ROBERT McQUEEN.
1889	-	-	-	-	-	D. C. McHENRY, M.A.
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1896	-	-	-	-	-	JOHN DEARNESS.
1897	-	-	-	-	-	{ JOHN MONRO. A. A. JORDAN.
1898	-	-	-	-	-	THOMAS KIRKLAND, M.A.
1899	-	-	-	-	-	J. E. FAREWELL, LL.B.
1900-01	-	-	-	-	-	MRS. ADA M. HUGHES.
1901-02	-	-	-	-	-	JOHN HENDERSON, M.A.

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PROCEEDINGS  
OF THE  
FORTY-FIRST ANNUAL CONVENTION  
OF THE  
ONTARIO EDUCATIONAL ASSOCIATION.

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*MINUTES OF THE GENERAL ASSOCIATION.*

FIRST DAY—EVENING SESSION.

TORONTO, April 1st, 1902.

The Convention met in the Public Hall of the Education Department at eight o'clock, the President, Mr. John Henderson, St. Catharines, in the chair.

Chancellor Burwash read a portion of Scripture, Proverbs iii, 1-17, and led in prayer.

Moved by Mr. R. Alexander, Galt, seconded by Mr. Chas. A. Barnes, London, that the Minutes having been printed and distributed, be considered as read and are hereby approved. Carried.

Communications were read from :

1. The Public School Board, Ottawa, expressing its approval of the action taken by the Ontario Educational Association last year, in reference to a system of superannuation under the control of the Education Department, and inviting the Ontario Educational Association to hold its next meeting in Ottawa.

2. The Secretary of the North Wellington Teachers' Association, stating that the said Association heartily endorse the resolutions

passed by the Ontario Educational Association at the meeting in April, 1901.

Notices of motion were given as follows:

1. Dr. A. Hamilton, Toronto.—I hereby give notice that on Wednesday evening I shall move that a Standing Committee on variant spelling be appointed by this Association, and that such committee be asked to revise the report on variant spelling in the Public School Department in 1901 (published in the Proceedings), and such other spellings as may be brought to their notice, and that such committee at the meeting of the Association, in 1903, and each subsequent year, present a report with recommendations of commendable spellings. The committee shall consist of Professors Cameron, Horning, Keyes, Squair; Principals McAllister, Hicks Pakenham, Fraser; Messrs. Wm. Houston, Lockheed, and the mover with power to add to their number.

2. Mr. Norman F. Black, Lindsay.—*Resolved*, (a) That there should be a General Committee of the Ontario Educational Association, composed of the present Board of Directors, and one elected representative from each Teachers' Association in the Province.

(b) That this General Committee meet at least twice a year, holding a two-day session at the semi-annual meeting, and a one-day session at the annual meeting, to be held the day preceding the Ontario Educational Association meeting at Easter.

(c) That the County Associations bear the expense of their representatives, and the Provincial the expense of its representatives, and that the Government be asked to make a grant covering a part or all of this outlay.

(d) That all resolutions of the General Association, or of its Departments, involving any recommendation to the Minister of Education, together with any such resolutions submitted by County Teachers' Associations, be considered by this General Committee and by them forwarded, with the opinion of the General Committee thereupon, to the Minister of Education.

3. Mr. W. K. T. Smellie, Deseronto.—*Resolved*, That it is desirable to render the Departmental examinations of as great use as possible to the teachers and pupils throughout the Province;

That the attainment of this aim may to a certain extent be furthered by communicating to all the schools the more important errors in the treatment of subjects, whether by teachers or in textbooks, that may be discovered by examiners and associate examiners in the course of their work;



That it is advisable that each section of examiners and associate examiners be asked to report any such errors as above that may come under the notice of each, with hints as to proper method of treatment, as well as any suggestions which they may deem it wise to make with a view to the improvement of the teaching of their special subjects; that these reports be placed in the hands of a committee to be edited; and that the reports, as revised and edited, be printed and distributed to the schools throughout the Province;

That the Chairman of the Ontario Educational Association nominate a committee of three (?) to bring this matter to the attention of the Minister of Education.

Hon. R. Harcourt, Minister of Education, addressed the Association. See page 52.

The President,—I think you would be much better pleased if you were to have the conversazione now instead of listening to my speech, and if some gentleman would move that the speech be received as read, I would be very glad.

Mr. Wm. Houston, moved, seconded by Mr. Dearness, that the President's address be taken as read, in order that the members of the Association may have a chance to go about the corridors and visit this beautiful building by electric light. Carried.

The entertainment in the Building was closed at 11 o'clock.

### WEDNESDAY, April 2nd, 1902.

The President, Mr. Henderson, took the chair at 8 o'clock p.m.

Moved by Mr. S. McAllister, seconded by Mr. Knight, that the President's address be the first order of business. Carried.

President Henderson addressed the Association on "Educational Needs."

Mr. S. Silcox, St. Thomas, moved, seconded by Mr. E. T. Young, Hamilton, that in the opinion of this Association, it is desirable that bonuses be granted by the Legislature to those schools in which efficient teachers have been engaged for a continuous period of three years, at a salary which the Legislature considers ample. Carried.

Mr. C. G. Fraser, Toronto, addressed the Association on High School Entrance Examinations.

Mr. W. F. Moore spoke on "The Status of the Educational Council." See page 77.

Moved by Mr. W. F. Moore, Dundas, seconded by Rev. W. W. Cook, Thorold,

1. That in the opinion of this Association the Educational Council should have its membership increased to nineteen :

One from each University ;  
Three Collegiate men ;  
Five Public School men ;  
One Inspector ;  
One Trustee ;  
One from the Training Schools ;  
One outsider.

2. That these should be elected by the bodies they represent, except the outsider, who should be appointed by the Minister, and should be Chairman.

3. That the committee should have charge of the authorized text books, examinations and curricula.

4. That they should be paid for their services.

In amendment, Mr. J. Squair, Toronto, moved, seconded by Mr. F. W. Merchant, London, that the question of the Educational Council be referred to a committee of twelve persons, to be appointed by the President of the Association, the said committee to report at the next annual meeting. Carried.

The President named the following gentlemen as members of the above-named committee : Messrs. J. Squair, D. Young, W. F. Moore, N. F. Black, Wm. Houston, R. A. Thompson, J. Henderson, J. H. Smith, John Waugh, Wm. Scott, Alex. Steele, Chas. A. Barnes.

In the absence of Mr. James L. Hughes, Chairman of the Committee on Superannuation, the report of the committee was read by Mr. E. T. Young, of Hamilton.

TORONTO, April 2nd, 1902.

*To the President and Members of the Ontario Educational Association :*

The Committee on Teachers' Pensions and Retiring Allowances has the honor to report that, as a preliminary step before preparing a scheme for adoption in Ontario, it arranged for the preparation of a comprehensive statement of the Teachers' Pension and Superannuation schemes in force in different European and American countries. See page 424.

Five hundred copies of this statement were printed, and copies were sent to members of the Board of Directors of the Association, and to members of the Committee on Pensions.

At the request of the Premier of Ontario, a copy of this statement was sent to each member of the Ontario Legislature.

It was the intention of the committee to interview the Government of Ontario, with a view of securing Government aid in support of a scheme for the superannuation of teachers; but the Hon. Mr. Ross informed the committee that no action could be taken in regard to the matter, during the session of the Legislature recently closed.

Mr. Ross also informed the Chairman of the Committee that it is his intention to introduce a general Superannuation Act at the next session of the Legislature, providing for pensions for Government employees on their retirement from the service of the Government, and that it is his intention to include in that Act a provision for assisting in the superannuation of teachers.

In view of this fact your committee recommends that it be re-appointed in order to represent the Association in securing from the Government the most favorable Superannuation Act possible, with authority to communicate the proposed Act to the Executive Committees of the Teachers' Associations throughout Ontario for suggestions for its improvement.

Respectfully submitted,

JAMES L. HUGHES,  
*Chairman of Committee.*

On motion of Mr. Young, seconded by Mr. Wm. Scott, Toronto, the report was adopted and the requests of the committee were granted.

The following officers were elected for the year 1902-3.

<i>President,</i>	-	-	-	John Seath. LL.B.
<i>Secretary,</i>	-	-	-	R. W. Doan.
<i>Treasurer,</i>	-	-	-	W. J. Hendry.

Moved by Mr. W. Tytler, seconded by Mr. E. A. Hardy, that the Ontario Educational Association hereby endorses the action of the Ontario Library Association, in requesting the Lieutenant-Governor in Council to appoint a Library Commission to investigate and report upon the library question in Ontario. Carried.

Moved by Mr. Wm. Houston, seconded by Mr. J. C. Brown, of Peterboro', that this Association desires to record its appreciation

of the Reading Camp and Club House movement, now carried on in Northern Ontario, and of the efforts made by managing employers in that region to establish and equip free reading, recreation, and instruction rooms for the benefit of their employees, and it ventures to urge on the Provincial authorities the necessity of providing an ample supply of literature and of appointing traveling supervisors, whose duty it will be to give educational and other assistance in making the most effective use possible of these means of recreation and culture. Carried.

Dr. Hamilton moved the resolution of which he gave notice on Tuesday evening. This was seconded by Mr. Dearness, and was carried.

Mr. Norman moved the resolution of which he gave notice on Tuesday evening. This was seconded by Mr. Young.

It was agreed that the motion be referred to the committee named by the President to consider the question of the status of the Educational Council.

Moved by Mr. J. Dearness, seconded by Mr. J. C. Brown, that the President appoint a committee to bring before this Association, at its meeting to-morrow evening, an expression of the appreciation of this Association of the recent very generous benefactions in the interests of public education, which have been made by Sir Wm. C. Macdonald, Dr. Goldwin Smith, and the late Hart A. Massey. Carried.

Mr. Smellie moved the resolution of which he gave notice on Tuesday evening. This was seconded by Mr. J. A. Houston.

Mr. G. Dickson gave notice that on Thursday evening he would move that the Board of Directors of the Ontario Educational Association be instructed to consider the advisability of making arrangements with the Board of Trustees of the University of Toronto, for holding meetings of this Association in the University buildings, instead of in the rooms of the Educational Office and the class rooms of the Normal and Model Schools.

The meeting adjourned.

#### THURSDAY EVENING, APRIL 3RD, 1902.

The Convention assembled at 8 o'clock, President Henderson in the chair.

Rev. Herbert Symonds, D.D., delivered an address on "Arnold of Rugby."

James H. Coyne, B.A., addressed the Association on "The French Explorers of the Great Lakes."

The Treasurer, Mr. W. J. Hendry, read the Financial Statement. The Auditors' Report was read by Mr. J. Dearness.

On motion the reports of the Treasurer and the Auditors were adopted.

Mr. Wm. Houston, Chairman, read the report of the committee appointed to draft a resolution in recognition of the gifts and bequests for educational purposes, which was as follows:

The members of the Ontario Educational Association avail themselves of this opportunity to express their appreciation of the generosity of the eminent Canadians who have recently made liberal donations or bequests for the purpose of improving educational work in this Province. Foremost among them must be mentioned Sir William Macdonald, of Montreal, who has donated a large amount for the promotion of industrial education in the various forms of domestic economy, manual training, nature study and the scientific side of agriculture. The late W. E. H. Massey, of Toronto, gave a sum sufficient to erect a fine library building in connection with the Ontario Agricultural College. Dr. Goldwin Smith, moved by the defective state of the library of the Provincial University, has donated the sum of ten thousand dollars to improve it. Lastly, the late Dr. Scadding bequeathed to the same library a large and valuable collection of books. In putting on record their appreciation of these gifts the members express the hope that the examples set by the donors will be frequently followed as the prosperity of the country increases.

The report was adopted, and the Secretary was instructed to send copies of this resolution to the parties interested.

It was decided to hold the next meeting of the Association in Toronto.

Mr. George Dickson moved the resolution having reference to the place of meeting, of which he gave notice on Wednesday evening. It was seconded by Mr. William Houston and declared carried.

Moved by Mr. R. W. Doan, seconded by Mr. W. J. Hendry, that the thanks of this Association are due and are hereby tendered to the Hon. R. Harcourt, Minister of Education, for the use of the Education Department Buildings during the present meeting, to the managers of the daily papers for the full and accurate reports of the proceedings of the Association, and to the editor of the *Canadian Teacher* for the extended notice of this meeting given in said periodical. Carried.

The Convention closed with the singing of God Save the King.

*MINUTES OF THE COLLEGE AND HIGH SCHOOL  
DEPARTMENT.*

MORNING SESSION.

The College and High School Department of the Ontario Educational Association met at 10 a.m. Thursday, April 3rd, 1902, Mr. John Squair in the chair.

The minutes were read and adopted.

The following communications were read :

1. A letter from Mr. N. F. Black, President of the East Victoria Teachers' Association, accompanied by a printed resolution.

2. A communication from Mr. Wm. Houston, regarding his resolution in the Senate "to create a new graduating department in languages."

The President, Professor Squair, then read his address. Discussion was postponed.

Mr. John Seath, Inspector of High Schools, followed in his paper on "Suggestions to Teachers of Secondary Schools," which was well received.

AFTERNOON SESSION.

Mr. Embree's notices of motion were taken up, but No. 4, "That it is desirable to restore the English pronunciation of Latin in our High Schools," was the only one discussed. The matter was left to the Advisory Committee.

Mr. Hagarty then read his paper on the "Overloading of the High School Curriculum." Some discussion followed, when it was moved and seconded that "the Advisory Committee consider the suggestions of Mr. Hagarty's motion, viz.: (1) That the amount of work for pass matriculation should be generally reduced; (2) that the standard should be raised to 50 per cent., and (3) that a representative committee of eight be appointed to supervise details." Carried.

With reference to Mr. Seath's paper, it was moved, seconded, and carried unanimously, that the Education Department be requested to undertake the printing of it with Mr. Seath's consent.

The following officers were elected for 1902-3 :

<i>President,</i>	-	-	-	J. E. Wetherell, B.A.
<i>Vice-President,</i>	-	-	-	A. Carruthers, M.A.
<i>Secretary,</i>	-	-	-	T. H. Smyth, M.A., B.Sc.

Moved by Mr. Strang, and seconded, that the Secretary notify the secretaries of the Historical and Commercial Department of the statute requiring all Sections to unite as a College and High School Department on the last day of the Association meetings. Carried.

Mr. Pakenham then read his paper on "Confidential Reports of the Staffs, and the Departmental Examinations."

Moved by Mr. Embree, seconded by Mr. Elliott, that in the confidential reports of the High School Masters to the Education Department all the names of the candidates be entered on the lists once only in alphabetical order, and that each teacher's estimate of the candidate's standing be entered under each subject. Carried.

The following are the members of the Advisory Committee: Messrs. J. E. Wetherell, A. Carruthers, T. H. Smyth, G. K. Mills, C. S. Kerr, S. H. Needler, Rand, Rigby, Kilmer.

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#### *MINUTES OF MODERN LANGUAGE SECTION.*

TUESDAY, APRIL 1ST, 1902.

Session opened at 10 a.m., the President, Mr. A. W. Burt, in the chair.

The President's address was on "New Phases of Modern Language Teaching." An exhibition of the phonographic system of teaching languages, used by the International Correspondence Schools of Scranton, Pa., was given by Mr. Geo. Carruthers.

By resolution the Constitution was changed, reducing the number of councillors from twelve to six.

#### AFTERNOON SESSION, 2 O'CLOCK.

Monsieur E. Masson gave an address on "L'Etude des Langues Modernes considérée comme un Facteur dans la Civilisation au point de vue Matériel, Intellectuel et Moral."

Mr. Hector Charlesworth, of the *Mail*, read a paper on "Pinero," and F. J. A. Davidson, Ph.D., one on "Hervieu," the two forming a very interesting discussion on the modern drama.

The following officers were elected :

<i>President,</i>	-	-	Mr. G. H. Needler.
<i>Vice-President,</i>	-	-	Mr. A. E. Lang.
<i>Secretary-Treasurer,</i>	-		Mr. J. Squair.
<i>Councillors,</i>	-	-	Miss H. Charles, Miss J. S. Hillock, Mr. J. N. Dales, Mr. W. C. Ferguson, Mr. F. F. Macpherson, Mr. Geo. E. Shaw.

#### APRIL 2ND, 10 A.M.

Mr. J. P. Hoag, B.A., read a paper on "The Use of English Grammar and its Place in our School System."

On motion, it was resolved that a committee of English teachers of the Association be appointed to consider the matter of teaching English grammar in the High and Public Schools, to draft out a syllabus of work in each form, and to report at the next meeting of this Association; such committee to act in co-operation with a similar committee of the Public School Department. Committee: Messrs. Alexander, Edgar, Hardy, Hoag, McCool, Park, Smith, Stevenson.

*Resolved,* That the Executive take into consideration the formation of a library for the Modern Language Association.

#### AFTERNOON SESSION, 2 O'CLOCK.

Dr. Burwash read a paper on "The Millenary of King Alfred."

Mr. O. J. Stevenson, B.A., read a paper on "Robert Louis Stevenson."

The Question Drawer was then opened and the questions therein discussed.

Mr. W. J. Galbraith, B.A., read his paper on "The Examinations in French and German from the Associate Examiner's Standpoint."

The Section adjourned.



## MINUTES OF THE NATURAL SCIENCE SECTION.

TUESDAY, APRIL 1ST, 1902.

The Natural Science Section met at 2 p.m., President G. A. Smith in the chair.

The minutes of last year were read, and, upon motion, confirmed.

Moved by W. H. Stevens, seconded by G. K. Mills, that J. McNiece be press reporter, and that those reading papers hand to the secretary a synopsis of the paper before reading. Carried.

The President then gave his address on "Some Palæontological Results," which was listened to with so much interest that it was moved by G. K. Mills and seconded by W. K. T. Smellie, that the address of the President be published in the Proceedings. Carried.

Prof. M. W. Doherty then gave an account of the "Wellington Field Naturalists' Club," detailing the plan of organization, the sort of work done, the methods employed by the club, etc.

Discussion was carried on by Messrs. Smith, Mills, Lennox and others. Mr. Mills wished to know the feeling of the members as to the formation of a Nature Study Section. It was moved by W. K. T. Smellie and seconded by G. K. Mills, that the Secretary be instructed to communicate with the Secretaries of the Training, Inspectors' and Public School Departments to secure a joint meeting, at the next meeting of the O. E. A., for the discussion of nature study. Carried.

W. H. Stevens gave notice of motion that he would bring before the Section, at its morning section to-morrow, the resolution of the East Victoria Teachers' Association regarding the formation of a special committee to advise the Minister of Education.

WEDNESDAY, APRIL 2ND, 1902.

The Section met at 10 a.m., President in the chair. The election of officers resulted as follows :

<i>Honorary President,</i>	-	-	W. G. Miller, B.A., Kingston.
<i>President,</i>	-	-	G. K. Mills, B.A., Collingwood.
<i>Vice-President,</i>	-	-	Miss E. M. Curzon, B.A., Toronto.
<i>Sec.-Treas. and Representative</i>			
<i>to College and H. S. Dept.</i>	-	-	E. L. Hill, B.A., Guelph.
<i>Councillors,</i>	-	-	A. E. Jewett, M.A.; M. L. Rush,
			B.A.; Jas. McNiece, B.A.; W. R.
			Liddy, B.A.; T. E. Langford.

The resolution of the East Victoria Association was moved by W. H. Stevens, seconded by G. K. Mills.

Mr. Ellis said we should have the most influential men on the general committee. Mr. Lennox questioned whether such committee would do any more than the O. E. A. as at present. Mr. Gilfillan favored the principle of the resolution.

It was moved in amendment by Messrs. Smellie and Lennox, that the matter be laid over, pending the action of the General Association.

The original motion was put and declared lost. The amendment was carried.

E. L. Hill, Secretary, gave a report upon some recent scientific books, most of which were shown to the members. The Twentieth Century series, published by Appleton's and handled by Morang & Co., Appleton's Canadian representatives, was commended as most valuable, especially the botanical works of Dr. Coulter, "Plant Studies" and "Plant Relations." Coulter and Chamberlain's "Seed-Plants" (also published by Appleton's) was commended as the best up-to-date, scientific work on the Morphology of Gymnosperms. The second volume, just appearing, should also be in the hands of every teacher of botany. This latter volume deals with flowering plants. "Field Work in Nature Study," a little book by Jackman, dealing broadly with an important phase of the subject, was exhibited. Dr. Alex. Hill's "Introduction to Science" was characterized as a book for teachers and advanced pupils, dealing in a satisfactory manner with certain scientific problems of the day, such as "Ultimate Constitution of Matter," "Functions of Nerve-Fibres and Cells," etc. These two books are also handled by Morang & Co. Tadd's "New Methods in Education," published by Orange Judd Co., was stated to be a beautifully made book, dealing in an original, attractive and practical way with "Real Manual Training."

The attention of the members was also called to *School Science*, the new monthly for science in secondary schools. Each issue of the year has been full of interesting matter. All were urged to become subscribers and, as far as possible, contributors to this excellent periodical.

W. H. Jenkins reported for committee appointed to interview the Minister regarding changes in the curriculum. The Minister had received the committee favorably, and had stated that the changes suggested were in line with his own views.

W. S. Ellis reported regarding the programme of elementary work in science, that for various reasons he had nothing definite to lay before the Association. He suggested that the committee be continued until next year and be asked to have ready a draft programme of study, and that a place for its consideration be made in next year's programme. A resolution of this tenor was moved by Messrs. Rush and Hill, but was withdrawn, and the following motion of Messrs. Smellie and Lennox was adopted: That the scope of the committee be enlarged to include Public School work, and that the draft report be printed and distributed to each science master two months before the meeting of 1903.

Mr. Ellis explained the failure of the committee to report on Nature Study. He had made several attempts to secure a further interview with the Minister, but had not succeeded.

The Association met at 2 p.m., in the Chemical Building. J. S. Plaskett, B.A., gave an excellent address on "Translation of Color into Monochrome by Photography." He showed the advantage of using isochromatic plates, by means of a number of good photographs illustrating the differences between ordinary plates and plates adapted for showing the various lights and shades at their true value. The members were also deeply interested in some color-photographs of exceptional merit.

The Honorary President, Prof. W. Lash Miller, Ph.D., F.R.S.C., gave an interesting address on "Chemical and Physical Change," illustrated by experiments in a very striking manner. This paper appears in the Proceedings.

The Mathematical and Physical Section met with the Natural Science Section to hear Dr. Miller's address.

Carl Lehmann, B.A., closed the session with an account of methods in "Color Photography," showing some photographs he had made with simple apparatus. The various methods by which color photographs can be produced were fully described, and the merits of each method pointed out.

The thanks of the Association were tendered to Dr. Miller and to Messrs. Plaskett and Lehmann for their kindness in affording the members such a good afternoon's meeting.

*MINUTES OF THE CLASSICAL ASSOCIATION.*

TUESDAY, APRIL 1ST, 1902.

The Association met at 10.45 a.m., the President, Mr. W. N. Bell, in the chair.

Moved by Mr. Colbeck, seconded by Prof. Hutton, that the minutes of the Association for 1901, as printed in the Proceedings, be taken as read.

The President's address followed, entitled, "Latin for the Public School Teacher." \* After discussion by Messrs. Hutton, Henderson, Strang, Kerr, McBride and Thompson, it was moved by Mr. McBride, seconded by Prof. Hutton, that the following resolution, passed last year: "That, in the opinion of this Association Latin should, in the interest of culture, be retained as a subject essential to every teacher's education; but that this Association has never advocated making Latin compulsory for every High School student," be reaffirmed; and that the Committee then appointed be reappointed, with power to add to their number, to lay the matter before the Minister of Education. Carried.

Mr. R. Ross then read a paper entitled, "Latin Palæography," \* in which, in a vein of irony, he advocated the use of Roman uncials and cursive writing in the interest of archæological realism. The paper consisted chiefly of a statement of objections to the Roman pronunciation of Latin, and in the discussion which followed there was the usual variety of opinion and of experience. Messrs. McBride and Strang thought the effect on English unsatisfactory and the difficulty of learning Latin unduly increased. Mr. Colbeck held that the Roman pronunciation increased the pupil's interest in the study of Latin, and that, as the vocabulary is learned by the eye and not the ear, the difficulty of recognizing derivatives is practically non-existent. Mr. Robertson called attention to the extensive use of the Roman values in the pronunciation of foreign geographical and biographical names. Mr. Hagarty stated that there need be no loss of time if the pupils are left to pick up the pronunciation incidentally, as they should, their thought being directed mainly to the grammar.

The meeting then adjourned.

\* This paper is published in the Proceedings.

The afternoon session was held in University College. Three papers were read; one by Prof. Hutton, on "Browning and the Greeks," comparing and contrasting Browning's art and spirit with Hellenism and examining his poems dealing with the Greeks; a second,\* by Mr. E. O. Sliter, describing, with many illustrations, how he uses the lantern in the teaching of Ancient History; and a third, by Mr. A. Carruthers, on "Ancient Greek Sculpture." Mr. Carruthers gave a *résumé* of a paper on this topic read two years previously at the Association, and then exhibited a series of views of sculpture (chiefly Grecian) illustrative of his paper.

#### WEDNESDAY, APRIL 2ND, 1902.

The Association met at 10 a.m. The first paper read was by Mr. F. C. Colbeck, on "Acquiring a Vocabulary."\* Mr. Ross, in discussing the subject, contended that the vocabulary presented to the High School student of Latin, being chiefly Caesarian, is altogether too limited.

Mr. J. F. Thompson, in a paper\* on "Methods in Greek," criticised the prevailing method of studying Greek in beginners' classes and suggested an alternative method. The discussion which followed, by Messrs. Strang, Hutton, Milner, Robertson and Freeman, turned partly on the question whether Mr. Thompson's suggestions would improve matters, and partly on the danger of overdoing the inductive method in the study of Greek and Latin.

At the business meeting which followed, Mr. Hagarty brought up the question of the failure to present to the Minister of Education and the University Senate certain resolutions passed by the Association a year ago. After discussion, it was moved by Mr. Strang, seconded by Mr. Kerr, that this Association authorizes the calling together of the Executive Committee during the Christmas vacation to arrange the programme of the Easter meeting and to transact other business, the railway fares of the members to be paid from the funds of the Association. Carried.

\* This paper is published in the Proceedings.

The following were elected to office for the year 1902-3 :

*Honorary President*, - J. C. Robertson, B.A.  
*President*, - - - C. S. Kerr, B.A.  
*Vice-President*, - - A. Carruthers, M.A.  
*Secretary-Treasurer*, - H. J. Crawford, B.A., Toronto.  
*Councillors*, - - - E. W. Hagarty, B.A.; W. M. Logan,  
M.A.; W. C. Michell, B.A.; F. C.  
Colbeck, B.A.; L. C. Smith, B.A.;  
E. Coombs, M.A.; J. D. Morrow,  
B.A.; R. Ross, B.A.

*Representative on the Com-  
mittee of the College and*

*H. S. Department*, - H. J. Crawford, B.A.  
*Auditors*, - - - W. C. Michell, B.A., and E. W.  
Hagarty, B.A.

Mr. Michell gave notice that at the next meeting of the Association he would move that the number of Councillors be reduced from eight to four.

At the afternoon session, after the election of officers was concluded, the Treasurer's report was read and, on motion of Messrs. Logan and Coombs, was received and adopted.

Mr. Robertson moved, seconded by Mr. Coutts, that the Executive Committee of the ensuing year determine what papers or abstracts shall appear in the Proceedings of the Ontario Educational Association. Carried.

On motion of Messrs. Carruthers and Henderson, the payment of \$2.00 was authorized for services in connection with the electric lantern in University College.

It was announced that Prof. McFadyen would not be able to present his paper at this session, and Mr. J. Henderson read the concluding paper, \* "Shall Greek and Latin be Retained in our Secondary Schools?"

A long and suggestive discussion followed. Mr. Logan, Mr. Hagarty, Mr. W. N. Bell and others urged a more aggressive attitude, in the direction not of sectional belligerence, but of educating the public mind to the value of liberal studies. Rev. Dr. Milligan, in an interesting speech, deplored the options system, the popular view that the study of mankind is useless knowledge, and the

\* This paper is published in the Proceedings.

tendency to crudity and materialism so prominent in our young country. Out of nothing else, he declared, can such valuable results be got for vital education as out of Latin and Greek. Rev. Mr. Wookey held that Latin is begun too late in Canada, while Mr. Strang and Mr. Jamieson denounced the uselessness of most of the Public School teaching of Latin at present. Prof. Hutton held that the real evil is the tendency to overvalue applied science, and that it would be a great step in advance if science in the schools were dropped as useless; but he argued that it would be fatal to the hopes of increased Legislative support of University education if the public mind were disabused of the superstition that the study of science directly promotes material development. Mr. Colbeck and Mr. Kerr said that so long as so many in the schools did not go to the University, science could not be removed. Mr. Henderson believed that the general opinion of scientists in the Universities is that what is wanted in the students who come to them is not preparatory science but a knowledge of languages. Mr. J. J. Bell suggested local option in the teaching of science, as different localities were interested in quite diverse branches of science. Mr. Logan argued that Greek has been killed in the schools by the present matriculation requirements; to remedy this, Mr. Thompson suggested the adoption of the certificate system for students who have spent three years at Latin and Greek. The danger of substituting mere reform in machinery for education of the public mind to the value of the humanities was pointed out by Mr. Robertson. Mr. Milner thought the chief damage had been done by faddists, and that as the country grew more mature the demand for culture would grow.

As an outcome of the discussion two resolutions were passed—the first, proposed by Mr. Colbeck, that, in the opinion of the Classical Association, two years is the minimum time necessary for studying Latin in such a way as to make it of educational value, while for the ordinary student three or four years are desirable and necessary if he is to attain to Junior Leaving or Matriculation standard; the second, by Mr. Hagarty, that the question of Latin and Greek in the schools be referred to a representative committee of the College and High School Department, to be treated from a purely educational standpoint. The meeting then adjourned.

In the evening a reunion dinner was held at the Temple Café, at which about thirty-five members of the Association were present.

*MINUTES OF THE MATHEMATICAL AND PHYSICAL  
SECTION.*

TUESDAY, APRIL 1ST, 1902.

The Mathematical and Physical Section met at 2 p.m., the President, I. J. Birchard, M.A., Ph.D., in the chair.

The minutes of the meeting of 1901, as printed in the Proceedings, were, on motion, taken as read.

The President then read a paper entitled "Some Educational Fallacies," in which he deprecated the prevailing tendency to unduly simplify subjects which are essentially difficult, giving examples in arithmetic, physics and geography. He also criticised some features of the present Kindergarten training.

After some discussion on this paper, Prof. M. A. McKenzie, of Trinity University, gave a very interesting and instructive address on "Recollections of a Cambridge Undergraduate."

The President announced that he had received a letter from Mr. Ballard, who had promised a paper on "Continuity in Mathematical Demonstrations," stating that he would be unable to give it.

Mr. G. W. Keith gave notice that he would introduce a motion along the lines of a resolution passed by the East Victoria Teachers' Association, printed copies of which were distributed among the members of the Section.

The meeting then adjourned.

WEDNESDAY, APRIL 2ND, 1902.

The Section met at 10 a.m., the President in the chair.

The minutes of the previous session were read and approved.

Mr. W. E. Rand was appointed press reporter.

Mr. W. M. Govenlock, B.A., then read a paper on "The Mathematicians of the First Alexandrian School," dealing particularly with the life and work of Euclid, Archimedes, and Apollonius of Perga.

Dr. Glashan discussed the paper at some length, dwelling especially on the work of Euclid.

Mr. W. E. Rand, B.A., then gave a paper on "First Lessons in Euclid." This paper gave rise to a discussion, in which Messrs. Birchard, Rose, Auld, Thompson, Martin and Govenlock took part.



The election of officers was then proceeded with, and resulted as follows :

<i>Honorary President,</i>	-	I. J. Birchard, M.A., Ph.D.
<i>President,</i>	- - -	W. E. Rand, B.A.
<i>Vice-President,</i>	- -	S. Martin, B.A.
<i>Secretary-Treasurer,</i>	-	H. S. Robertson, B.A.
<i>Councillors,</i>	- -	R. S. Gourlay, B.A.; J. C. McLennan, Ph.D.; R. A. Gray, B.A.; W. M. Govenlock, B.A.; T. Kennedy, B.A.; R. Wightman, B.A.; J. T. Crawford, B.A.; C. Auld, B.A.

*Representative to College  
and High School De-  
partment,* - - R. A. Thompson, B.A.

As there was not time to discuss it fully, Mr. Keith withdrew the motion of which he had given notice yesterday.

The meeting then adjourned.

The Section met again at 2 p.m., the President in the chair.

The minutes of the morning session were read and confirmed.

Prof. A. Baker, of Toronto University, then read a very entertaining paper entitled "A Mathematical Pot-pourri."

On motion of R. A. Gray, B.A., seconded by W. M. Govenlock, B.A., the thanks of the Section were tendered to Prof. Baker.

At 3.15 a joint meeting with the Natural Science Section was held in the Chemical Building of Toronto University, at which W. Lash Miller, B.A., Ph.D., gave an illustrated lecture on "Chemical and Physical Change."

The meeting then adjourned.

H. S. ROBERTSON, *Secretary.*

## MINUTES OF THE HISTORICAL SECTION.

TUESDAY, APRIL 1ST, 1902.

The three sessions of the Historical Section were all held in conjunction with the Ontario Historical Society, a union that was of marked advantage to this Section.

At 2 p.m. the President, Mr. A. C. Casselman, delivered a brief address and introduced Mr. Barlow Cumberland, M.A. His paper on "The Flag of Our Country" was interesting, eloquent and admirably illustrated by means of charts. A brief discussion fol-

owed, in which Mr. David Boyle, Mrs. C. Fessenden, Mr. C. B. Edwards and Professor Wrong took part.

It was moved by Mr. C. B. Edwards, London, Ont., seconded by Mr. Alex. Fraser, Toronto, and *Resolved*, That the Historical Section of the Ontario Educational Association hereby endorses the resolution passed by the Ontario Historical Society in favor of the adoption of the Maple Leaf as the distinctive Canadian emblem on our national flag.

Principal J. O. Miller, M.A., of Ridley College, St. Catharines, read an able paper on "Method in History," which will be found elsewhere in this volume.

### WEDNESDAY, APRIL 2ND, 1902.

At 2 p.m. a joint meeting of this Section and the Ontario Historical Society was held with the Public School Department, the President of the Public School Department, Mr. W. F. Moore, in the chair.

Mr. M. W. Matchett read a paper on "The Present Public School Text-Book in History." After an animated discussion, it was moved by Mr. M. W. Matchett, seconded by Mr. A. Weidenhammer, (1) That in the opinion of this Association the present text-book in history, authorized for use in the Public Schools, is objectionable on account of difficulty of language; (2) That the Department be requested to have a more suitable text-book prepared in the near future; (3) That in the preparation of the book Public School teachers be consulted. Carried.

It was moved by Mr. J. S. Carstairs, seconded by Professor G. M. Wrong, and *Resolved*, That whereas the present curriculum of history for our primary and secondary schools is indefinite, a representative Committee of six be appointed: (1) To draw up a syllabus of work suited to each grade of our primary and secondary schools; (2) To suggest such a supply of material as should be suited to each grade.

Professor George M. Wrong, M.A. (Convener), Mr. John Stewart Carstairs, B.A., Mr. M. W. Matchett, Mr. A. Weidenhammer, Principal J. O. Miller, M.A., Mr. C. B. Edwards, B.A., were on resolution nominated as the Committee of six.

By a resolution the Committee was instructed to request the Minister of Education to have its report printed so that it might be ready for the next meeting of the Association.

In the symposium, "What Should be Expected in History of the Pupil on Entering the High School?" Miss Alice Kelso read an able paper. Mr. R. J. Hill failed to present his share of the programme. A brief discussion followed.

THURSDAY, APRIL 3RD, 1902.

The joint meeting of this Section and the Ontario Historical Society opened at 2 p.m., the President in the chair.

The following officers were elected :

<i>President,</i>	-	-	-	Rev. Oswald Rigby, M.A.
<i>Vice-President,</i>	-	-	-	Adam Carruthers, M.A.
<i>Secretary-Treasurer,</i>	-	-	-	John S. Carstairs, B.A.
<i>Councillors,</i>	-	-	-	W. S. Milner, M.A., A. C. Casselman, Adam Shortt, M.A., G. M. Wrong M.A., C. B. Edwards, B.A., W. C. Michell, B.A., Miss Nellie Spence, B.A., Miss Alice Kelso, Miss Janet Carnochan, W. J. Robertson, B.A., LL.B.

*Representative to High  
School and College De-  
partment,*

- - - W. J. Robertson, B.A., LL.B.

The subject, "What Should be Expected in History of Students on Entering the University?" was ably introduced by Professor George M. Wrong, Professor Shortt, Professor Rigby and Mr. W. S. Milner. An interesting discussion followed, in which speeches were made by Messrs. Edwards, Hoag, W. J. Robertson and George R. Pattullo, and Chancellor O. C. S. Wallace.

Mr. C. C. James, M.A., contributed a valuable paper on "The First Ten Years of Upper Canada."

It was moved by Mr. J. S. Carstairs, seconded by Mr. W. J. Robertson, and *Resolved*, That the Historical Section desires to express its deep sense of the benefits that have been gained by the attendance and co-operation of the Ontario Historical Society at all the sessions of this meeting, and to express also the hope that the Ontario Historical Society can make such arrangements for the future that it will be associated in joint session with this Section at subsequent annual meetings.

The meeting then adjourned.

JOHN STEWART CARSTAIRS,  
*Secretary.*

*MINUTES OF COMMERCIAL SECTION.*

WEDNESDAY, APRIL 2ND, 1902.

The meeting was called to order at 10 a.m., by Mr. J. S. Black, President.

The minutes of the meeting of 1901 were read and approved.

Mr. C. E. Race was appointed press reporter, and Messrs. L. H. Shepley and R. S. Simpson were appointed auditors.

Mr. W. H. P. Anderson, C.A., read a paper, "Accountancy, as Applied to Commercial Work."

Mr. J. S. Black contributed a paper on "Conducting a Typewriter Class."

Messrs. Creelman Bros. Typewriter Co., kindly placed before the Section an "Underwood" Typewriter, and two of their operators gave exhibitions of rapid typewriting, showing the possibilities of the machine.

Mr. C. A. Fleming, C.A., Owen Sound, read a paper on "Commercial Law, Commercial Practice, and Commercial Forms."

THURSDAY, APRIL 3RD, 1902.

The Auditors' report was received and adopted.

Mr. S. M. Wicketts, Ph.D., read a paper on "The Scope and Outlook of the Commercial Course in the University."

Moved by Mr. R. H. Eldon, seconded by Mr. C. E. Race, that a committee be named by the President to prepare, and to submit to the University Senate, a resolution asking that a course be established at the University which would qualify Chartered Accountants and Commercial Specialists. Carried. The President named the following Committee: Messrs. R. H. Eldon, R. S. Simpson, C. E. Race and A. C. Neff.

Mr. A. C. Neff, F.C.A., then read a paper, "Progress in Book-keeping."

The election was held with the following results:

<i>President</i> , -	-	-	E. E. C. Kilmer, Aylmer.
<i>Vice-President</i> , -	-	-	J. A. Harper, Guelph.
<i>Secretary-Treasurer</i> , -	-	-	C. E. Race, Cobourg.
<i>Councillors</i> , -	-	-	D. M. Walker, Niagara Falls; R. W. Johnson, St. Thomas; H. A. Collins, Chatham; R. H. Eldon, Toronto; R. S. Simpson, St. Thomas; L. H. Shepley, Collingwood.

Mr. J. S. Black was appointed the representative to Executive of the College and High School Department.

A vote of thanks was tendered the retiring Secretary, for his services during the year.

J. A. HARPER,  
*Secretary.*

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*MINUTES OF THE PUBLIC SCHOOL DEPARTMENT.*

TORONTO, APRIL 1ST, 1902.

The Public School Department of the Ontario Educational Association met at 10 a.m. in the gymnasium of the Normal School.

Mr. W. F. Moore, of Dundas, the President of the Department, occupied the chair.

Mr. Edward Ward, of Collingwood, opened the proceedings with Scripture reading and prayer.

Mr. A. Weidenhammer, Waterloo, was appointed Minute Secretary, and Mr. T. J. Hughes, Toronto, Press Secretary.

The minutes of the last meeting having appeared in the printed proceedings were, on motion, confirmed without reading.

Mr. Gray, Toronto, read the Treasurer's report, showing a deficit of \$1.33. This report was received and referred to the auditors. Messrs. P. H. Harper and J. A. Hill were appointed auditors for the current year.

Mr. Fraser, Secretary, read the report of the deputation who waited on the Hon. R. Harcourt, M.A., Minister of Education.

Moved by Mr. E. T. Young, seconded by Mr. W. E. Groves, that the report of this deputation be accepted, and the discussion deferred until the hour for the general discussion of resolutions. Carried.

On motion of Messrs. C. G. Fraser and Edward Ward, the report of the Committee on a Public School Teachers' Union, was taken up next. Mr. E. T. Young read the report of this committee and reported progress.

On motion of Messrs. E. T. Young and W. D. Spence, the report of the Committee on a Teachers' Union was received, and the committee was reappointed and given power to add to their number.

The President appointed the following gentlemen as a Committee on Resolutions: Messrs. Groves, Bruce, Kelly, McEwan and Fraser.

On motion of Messrs. Gray and Cork a resolution from the Windsor and Walkerville Teachers' Association was discussed. Messrs. Gray, Fraser, Kelly, Spence, McMillan, Robertson, McEwan, Cork and Curtis took part in the discussion.

On motion of Messrs. Gray and E. T. Young, the resolutions of the Windsor and Walkerville and Perth Teachers' Associations were referred to the Committee on Resolutions.

The following notices of motion were given: Mr. Black, a resolution from the Lindsay Teachers' Association; Mr. Gray, a motion to amalgamate the offices of secretary and treasurer; Mr. Kelly, a motion to reduce the amount of technical grammar taught in the Public Schools; the Hamilton Teachers' Association, a motion to ask for a Dominion Teachers' Certificate.

Mr. McAllister reported progress on the question of a New Phonic Primer, and asked permission to bring in his report on Wednesday morning. The permission was granted.

On motion of Messrs. Edward Ward and C. E. Kelly, the discussion of resolutions was then proceeded with.

After discussion by Messrs. Gray, Ed. Ward, Weidenhammer, McMillan and Dale, the Department re-affirmed their position in reference to resolutions Nos. 1 and 2. No. 3 was re-affirmed, but the words "School of Pedagogy" were changed to "Normal College." No. 4 was changed to read as follows: That Latin should not be a compulsory subject for Junior and Senior Leaving Certificates. No. 5 was changed to read as follows: That Specialists' and Inspectors' Certificates be granted as previous to 1897.

The meeting adjourned at 12 a.m.

## TUESDAY AFTERNOON SESSION.

The Department resumed its session at 2.10 p.m. This was a joint meeting of the Public School and Training Departments.

Mr. S. B. Sinclair, B.A., Ph.D., Vice-Principal of the Ottawa Normal School, read a very interesting paper on "The Progress of Modern Educational Thought," and on motion of Messrs. Hill and P. H. Harper, he was tendered a very hearty vote of thanks for his excellent paper.

Mr. Hughes, Inspector of the Public Schools of Toronto, addressed the Department for a few minutes in the interests of the

Central Art League of Toronto, and received the thanks of the Department on motion of Messrs. Bennet and Alexander.

Mr. E. W. Bruce, M.A., read a very interesting paper on the question, "Should the Entrance Examination be Abolished?"

On motion of Messrs. Gray and Holman, Mr. Bruce was tendered a hearty vote of thanks for his paper.

Messrs. Gray, Jordan, Young, Holman and Groves took part in the discussion of Mr. Bruce's paper.

The following resolution was adopted on motion of Messrs. E. T. Young and R. A. Ward:

That in the opinion of this Association the time has come for the careful consideration of the existing Entrance Examination with a view of the modification of it; and that a committee be named by the chair to bring in a report in harmony with this resolution at next year's Association.

This resolution was discussed by Messrs. Ritchie, Linton, Curtis, McMillan and Jordan.

The President appointed the following gentlemen as a committee on the foregoing resolution: Messrs. E. T. Young, Bruce, Jordan, Linton and R. A. Ward.

The meeting adjourned at 4.30 p.m.

#### WEDNESDAY, APRIL 2ND, 1902.

The Department re-opened at 9.15 a.m. Mr. Ward, Collingwood, opened the proceedings with Scripture reading and prayer.

The minutes of the first day's sessions were read and adopted.

Mr. Black's motion, of which notice had been given the previous day, was discussed by Messrs. Black, R. A. Ward, Edward Ward, Hill, Young and others. On motion of Messrs. Hill and Smith, the discussion of this motion was laid over for one year, and copies of it were to be printed at the expense of this Association and sent to the secretaries of the County Associations for discussion at their meetings. Carried.

Mr. Hill read the auditors' report, confirming a deficit of \$1.33 as stated by the Treasurer. The report was adopted on motion of Messrs. Hill and Young.

Mr. McAllister read the report of the committee on a "New Phonic Primer." This report was received on motion of Messrs. McAllister and Fraser, and adopted on motion of Messrs. Fraser and Ritchie, after discussion by Messrs. Fraser, Ritchie, Gray, McAllister and Young.

The motion of Messrs. Gray and Kelly to amalgamate the offices of secretary and treasurer was lost.

On motion of Messrs. Bruce and Spence it was decided to send a copy of the report of the Committee on a "New Phonic Primer," together with the names of the members of the committee, to the Education Department.

Mr. W. F. Moore, President of this Department of the Ontario Educational Association, read a very interesting address on "The Boy Best Equipped for the Duties of Life."

On motion of Messrs. Gray and Kelly, the thanks of the Association were tendered to Mr. Moore for his excellent paper, and it was decided to publish the same in the proceedings of the Ontario Educational Association.

Mr. A. Weidenhammer read a paper on the question, "Should Less Time be Given to Arithmetic in the Public Schools?"

On motion of Messrs. Black and McAllister, the thanks of this Association were tendered to Mr. Weidenhammer for his paper, and it was decided to publish the same in the proceedings of the Ontario Educational Association.

The election of officers was then proceeded with, and resulted as follows: President, E. W. Bruce, Toronto; Vice-President, Edward Ward, Collingwood; Secretary, A. Weidenhammer, Waterloo; Treasurer, R. A. Ward, Toronto; Director, W. D. Spence, St. Marys. Executive Committee: D. Young, Guelph; J. A. Hill, Toronto; W. F. Moore, Dundas.

The meeting adjourned at 12.10 p.m.

#### WEDNESDAY AFTERNOON SESSION.

The session resumed work at 2.10 p.m. This was a joint meeting of the Public School Department, Training Department, Historical Section, and the Ontario Historical Association.

Mr. M. W. Matchett read a paper on "The Present Public School Text-Book in History."

The paper was discussed by Messrs. Linton, Weidenhammer, Berneth, Douglas, Carstairs, Prof. Wrong, Gray and Kelly.

The following resolution was adopted on motion of Messrs. J. S. Carstairs and Prof. Wrong:

That whereas the present curriculum of history for our primary and secondary schools is indefinite, a representative committee of six be appointed.



1. To draw up a syllabus of work, suited to each grade of our primary and secondary schools, and

2. To suggest such a supply of material as shall be suited to each grade.

On motion of Messrs. Matchett and Weidenhammer the following resolution was adopted :

1. That in the opinion of this Association the present Text-Book in History, authorized for use in the Public Schools, is objectionable on account of the difficulty of the language.

2. That the Education Department be requested to have a more suitable text-book prepared in the near future.

3. That in the preparation of this book Public School teachers be consulted.

Mr. Machett's resolution was discussed by Messrs. Gray, Ward, Weidenhammer, Fraser, R. A. Ward and Groves.

The following committee was appointed in connection with the resolution moved by Mr. Carstairs: Prof. Wrong, Toronto; J. S. Carstairs, Toronto; M. W. Matchett, Ashburnham; A. Weidenhammer, Waterloo; Rev. Mr. Miller, St. Catharines; C. B. Edwards, London.

Moved by Mr. Carstairs, seconded by Mr. Fraser, that the Minister of Education be requested by this Department to publish the report of the Committee of six as soon as it is ready. Carried.

Miss Alice Kelso, B.A., read a very interesting paper on "What Should High School Teachers Expect in History from Public School Pupils?"

On motion of Messrs. Ritchie and Casselman, a hearty vote of thanks was tendered to Miss Kelso for her excellent paper.

Mr. Groves continued the report of the Committee on Resolutions.

On motion of Messrs. Kelly and Black, the recommendation of the committee in regard to the East Lindsay Teachers' Association was adopted.

On motion of Messrs. Groves and Kelly, the recommendation of the Hamilton Teachers' Association in regard to a Dominion Certificate was deemed impracticable.

On motion of Messrs. Groves and Smith, the recommendation of the Wentworth Teachers' Association was sustained, and the examiners were to be requested to formulate the questions in grammar so as not to include as much technical grammar as formerly.

No action was taken on the resolutions from the Windsor and Walkerville and Perth Teachers' Associations, but the committee recommended that the discussion on these be deferred until Thursday. Carried.

The meeting adjourned.

#### THURSDAY, APRIL 3RD, 1902.

This Department resumed its work at 9.10 a.m. The minutes of Wednesday's sessions were read and adopted.

Messrs. C. G. Fraser and G. W. Holman were added to the Committee on Entrance Examinations.

Mr. G. W. Holman introduced the subject, "The New Entrance Literature Regulations."

The subject was discussed by Messrs. Holman, Linton, Stevenson, Gray, McMillan, Groves and Kelly.

Mr. Holman moved, seconded by Mr. Linton, That this Association strongly disapproves of the present regulation regarding Entrance Literature as covering too much ground, and that the proportion of marks assigned to each part of the paper be as follows: Memory Work, 10%; Prescribed Lessons, 50%; and Sight Work, 40%.

Mr. Groves moved in amendment, seconded by Mr. Kelly, that on the Literature paper for Entrance Examinations the marks be assigned as follows: Memory Work, 10 marks; Specified Lessons, 50 marks, and General or Sight Work, 90 marks.

The amendment was lost and the original motion carried by a large majority.

Mr. Stevenson requested the Public School Department to appoint a committee of six to arrange a syllabus of work in grammar for Public and High Schools, this committee to report next year. The request was made on behalf of the Modern Language Section of the College and High School Department, who appointed a similar committee, the two to work together.

The President-elect was requested to make this appointment on motion of Messrs. H. Ward and W. D. Spence, and he appointed Messrs. W. D. Spence, St. Marys; H. Ward, Toronto; A. McMillan, Toronto; G. W. Holman, Bayfield; Jos. Bennett, Toronto; C. E. Kelly, Stony Creek.

Mr. Kelly read a paper on "How Could the Bible Be Used as a Text-Book in Our Public Schools?"

The paper was discussed by Messrs. Langford, Gray, Holman, Groves, Young, Fraser, Patterson, Miss Mitchell, Messrs. Smith, Ward, Robertson, Spence and Inspector McKee.

Moved by Mr. Langford, seconded by Mr. Gray, that in the opinion of this Association it is inadvisable to advocate the use of the Bible as a text-book in the Public Schools. Carried.

Messrs. Kelly and Groves moved that selections from the Bible could be advantageously used in the teaching of History, Literature and Ethics. This resolution was carried by a narrow majority, the vote standing 54 to 42 in its favor.

The meeting adjourned at 11.45 a.m.

#### THURSDAY AFTERNOON.

The Department resumed work at 2.15 p.m.

On motion of Messrs. Spence and Weidenhammer, Messrs. Bruce, Hill McAllister and Moore were appointed a committee to wait on the Hon. R. Harcourt, Minister of Education, in reference to the resolutions passed by this Department.

On motion of Messrs. Spence and Groves, the accounts of the various secretaries were passed and ordered to be paid.

On motion of Messrs. McMillan and H. Ward, the matter of arranging the question of finances with the Executive Committee of the General Association, with the view of increasing the receipts, was left in the hands of the incoming Executive Committee of this Department.

Mr. Spence moved, seconded by Mr. Fraser, that this Department urge upon the General Executive to arrange that no fee shall be received by the Secretary of the General Association unless with it is paid the fee for the Departments to which the member desires to belong. Carried.

Messrs. H. Ward and Jos. Bennett were elected auditors for the current year.

On motion of Messrs. Fraser and Ed. Ward, it was decided to publish the papers read by Messrs. Bruce, Matchett and Kelly, in the Proceedings of the Ontario Educational Association.

On motion of Messrs. Fraser and Hill, the thanks of the Department were tendered to the retiring officers, minute secretary, press reporter, and to all who had prepared and read papers for the Department; also to the Minister of Education, the Legislature for matting, the Toronto Art League for pictures, and the *Canadian Teacher* for publishing programme, etc., in its columns.

The sum of \$3 was voted to three gentlemen for assistance in decorating the Gymnasium for the meetings.

On motion of Messrs. Fraser and Young, the discussion of the remaining resolutions was then proceeded with.

Moved by Mr. D. Young, seconded by Mr. W. E. Groves, that the Public School Section of the Ontario Educational Association gratefully places on record our high appreciation of the magnanimous gift of Sir William C. Macdonald for the purpose of founding an institution in connection with the Ontario Agricultural College, for the promotion of Manual Training, Domestic Science and Nature Study, and for fitting Public School teachers to give instruction in those special subjects, and that a copy of this resolution be sent by the Secretary to Sir William C. Macdonald Carried.

The report of the Committee on Resolutions was then discussed clause by clause, and was adopted, with a few unimportant changes besides those already set forth in these minutes.

The meeting then adjourned.

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## REPORT OF THE COMMITTEE ON A NEW PHONIC PRIMER.

The committee appointed by the President of the Public School Department of the Ontario Educational Association to request all teachers to submit, through the Secretary of this Department, subject-matter for a proposed new phonic primer, beg to report :

1. That no teacher has submitted any subject-matter for a new phonic primer. Failing such, your committee decided to communicate with publishers and ask them to submit what matter they had bearing on the subject.

2. The Secretary addressed four Canadian publishing firms, twenty-four United States firms, and eleven British firms. In all, nineteen primary reading books have been submitted, which we have subjected to careful examination, having our judgment guided by the following points, which we consider essential to a good phonic primer :

- (a) The book must be based on phonic principles.
- (b) Its aim should be to cultivate self-activity in the pupils.
- (c) The play element should predominate as far as possible, for example, giving the letters a personality.

(d) In order that the work may be presented in as simple a form as possible, there should be no diacritical marks.

(e) The work should be in regular sequence, proceeding from the simplest sounds to those most difficult. The short sound of the vowels should be taught before the long sound. There should be a proper classification of the various representations of the same sound, as ee, ea, ie and y having the same sound as ē, and a proper grouping of such irregularities as ough, ould, alk, ood, as these conduce to correct spelling.

(f) The pictorial illustrations should be numerous, artistic, and many of them colored, and they should suggest the form of the letter or its sound, or both if possible, rather than the word.

(g) The lessons should be simple, so as to carry out the aim of teaching reading, but they should, as far as possible, have some literary value. They should be short enough to be finished in one teaching period. They should be on such subjects and in such form as to call forth intellectual oral expression.

(h) The sentences should be short.

3. No book among those submitted fully answered the above requirements, but the one with the least objectionable features is the Modern Phonic Primer, published by Morang.

All which is respectfully submitted.

S. McALLISTER, *Chairman*.

CHAS. G. FRASER, *Secretary*.

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#### MINUTES OF THE KINDERGARTEN DEPARTMENT.

TORONTO, APRIL 1ST, 1902.

The meeting opened with a good attendance, the President, Miss Anning, in the chair.

After the reading of the minutes and the registration of members the President introduced the subject of the morning's programme, "Practical Methods of Developing the Ideals of the Mother Play." Miss Jones, Kingston, and Miss Boyd, Toronto, gave their experiences in taking up the Weathervane. Miss Bertha Thompson, Aylmer, chose the Tick-Tack as having been most helpful to herself and her children. Miss Dent, Toronto, dealt with the Pigeon-House experiences, and Miss Grace Johnston, of Berlin, outlined the development of the Star Songs in her Kindergarten. Miss

Lyon, Ottawa, told of connections made by the children in their morning talks. The papers showed that original work is being done in different places. Each paper was followed by a general discussion, those present suggesting different methods used to illustrate the same subjects.

In the afternoon the Kindergartners examined samples of work from different places, including work in water colors (Toronto Normal Kindergarten), raffia dolls' furniture (Chicago), card-board modelling and folding (Kingston and Toronto), rattan and straw-braid basket work (London). Suggestions for the decoration of rooms and the mounting of pictures were also given. The meeting adjourned before four o'clock to allow those present to visit the Classical Section, where they greatly enjoyed the views of ancient Greek sculpture shown by Prof. Carruthers.

TORONTO, APRIL 2ND, 1902.

After the reading of Tuesday's minutes Misses Currie and Jones were appointed to wait on the Minister of Education and again call his attention to the desirability of raising the school age to six years.

The officers elected for the year are :

<i>President,</i>	-	-	-	-	Louise N. Currie.
<i>Director,</i>	-	-	-	-	Edith A. Anning.
<i>Secretary,</i>	-	-	-	-	Jean R. Laidlaw.

Miss Louise N. Currie gave a very interesting account of the Summer School held last year by the Chicago Kindergarten College for Kindergartners and other teachers. She reported that the Psychology classes, in charge of Prof. Denton Snider and Miss Harrison, had a larger attendance than other classes and were found very inspiring. Primary teachers and Kindergartners were alike interested in the hand-work, splint and raffia weaving and card-board modelling, of which she showed some good specimens. Miss Clara Brenton's paper, "Physical Training as Applied to the Kindergarten Games" was read by Miss Laidlaw.

The paper was intended as a report of a short course of lessons in Physical Culture, given to the London Frœbel Society last October by Miss Fanny L. Johnson, of Boston, and there were frequent questions during the reading.

After discussion, Miss Emma L. Duff, a specialist in gymnastics, promised a drill later in the day, which was found very suggestive.

Wednesday afternoon was devoted to practical basket-weaving with rattan and raffia, under Miss Laidlaw's direction, and the afternoon session proving too brief, it was decided to spend from 9.30 to 10.30 on Thursday in hand-work.

#### THURSDAY, APRIL 3RD, 1902.

During the first hour of the morning session the Kindergarten was turned into a weaving-room. The rest of the morning was devoted to learning about methods used in the training of defectives.

Miss Anning read a paper prepared by Mr. George F. Stewart, of the Deaf and Dumb Institute, Belleville, on "The Education of the Deaf"; and Miss Messmore described methods used in the Ontario Institution for the Blind, Brantford.

Miss Beatrice Thompson, Berlin, whose children are not mentally deficient, but of mixed races, chiefly Polish, often unable to understand English, described some of her difficulties and successes.

The papers, which were decidedly interesting, will be found in the Proceedings.

JEAN R. LAIDLAW, *Secretary Kg. Dep.*

#### MINUTES OF THE TRAINING DEPARTMENT.

TORONTO, APRIL 1ST, 1902.

The Training Department of the Ontario Educational Association met at 10.20 a.m., in Principal Scott's room.

Mr. A. M. Burchill, Vankleek Hill, conducted the opening exercises by reading a portion of Scripture and prayer.

Mr. W. R. Lough, of Clinton Model School, and Chairman of the Department, took for his opening address, "The Revision of the Curriculum for Public Schools."

Mr. A. M. Burchill was appointed press reporter for the Department, and Messrs. Scott, Merchant and Wilson a committee for the selection of papers to be printed in the Proceedings.

Mr. J. C. Brown, Inspector for Peterboro, then led a very interesting and profitable discussion on "The English Alphabet from a Pedagogic Standpoint."

"Shakespeare and the Teacher" was the subject of a very thoughtful paper read by Mr. A. A. Jordan, Prescott Model School. On motion the meeting then adjourned.

WEDNESDAY, APRIL 2ND, 1902.

The Department met in Principal Scott's room at 9.10 a.m.

Principal Scott conducted the opening exercises.

Mr. F. F. Macpherson, M.A., of Hamilton Normal College, read a paper full of interest on "The Importance of Facts in the Teaching of Literature."

Discussion followed by Messrs. Silcox, Dearness and Scott.

A vote of thanks was tendered Mr. Macpherson for his excellent paper, and a recommendation was made to the committee to have it printed in the Proceedings. A similar recommendation was made regarding Mr. Jordan's paper.

Prof. J. G. Hume, of Toronto University, then read a paper on the "Educational Value of Interest." Discussion followed by Messrs. Sinclair, Morgan and others. After tendering Prof. Hume a hearty vote of thanks, the paper was ordered to be embodied in the Proceedings.

The election of officers then followed, which resulted as follows :

<i>Chairman,</i>	-	-	Principal Merchant, London.
<i>Secretary,</i>	-	-	William Wilson, Toronto Junction.
<i>Director,</i>	-	-	A. A. Jordan, Prescott.

The meeting then adjourned.

THURSDAY, APRIL 3RD, 1902.

The Department met at 9.15 a.m.

Principal Merchant conducted the opening exercises.

Prof. F. Tracy, of Toronto University, then gave an admirable address on the "Theories of Knowledge in Relation to Teaching." Discussion followed by Messrs. Scott and Merchant.

The Secretary was ordered to secure this paper for the Proceedings.

Vice-Principal Elliott, of Toronto Normal School, read a paper on "Nature Study." Discussion followed by Messrs. Dearness and Coutts.

On motion, it was agreed that Mr. Elliott's paper be printed in the Proceedings.



Principal Merchant, of London Normal School, led a discussion on "The Reorganization of the Training Schools." Principal Scott, Vice-Principal Elliott and Dr. Tracy also took part in the discussion.

Prof. Alexander, of Toronto University, then read a paper on "How to Teach and Conduct a Class in Literature."

A hearty vote of thanks was tendered him, and the paper was ordered to be secured for the Proceedings.

On motion the meeting adjourned, and the Convention of 1902 came to an end.

WILLIAM WILSON, *Secretary*.

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### *MINUTES OF THE INSPECTORS' DEPARTMENT.*

The members of the Inspectors' Section of the Ontario Educational Association met in the library of the Education Department, Toronto, April 1st, 1902, at 10 a.m., Inspector T. A. Craig in the chair.

The session was opened with prayer by Inspector J. H. Knight.

Minutes of 1901 were read and confirmed.

Inspector J. Connolly was appointed press reporter.

The report of the committee appointed at the last session to wait upon the Minister *re* Inspectors' salaries was brought in by Inspector W. Johnston. The report was adopted on motion of Inspectors Clendening and Knight.

On motion of Inspectors Johnston and Clendening, a committee, consisting of Inspectors Smith, Johnston and Cowley, was appointed to wait upon the Minister of Education at once and press upon him the necessity of increasing inspectors' salaries.

Inspector Day read an excellent paper upon "The Good Inspection of a School."

After a spirited discussion by Inspectors Smith, Davidson, Moshier, Johnston and others, further discussion was held over to the afternoon.

On resuming at 2 p.m., Inspector W. H. Ballard read a very interesting and instructive paper upon "Methods of Promotion in Graded Schools." Nearly all the inspectors present joined in the discussion of this paper, which was closed by Inspector Ballard.

Inspector W. Houston read a paper giving "Some Reasons for Abolishing the High School Entrance Examination in Its Present

Form." After discussion by Inspectors W. E. Tilley, McKee, Clendening, Deacon, Chapman, Knight, Colles, Park and Houston in reply, it was moved by Inspectors Colles and Knight: "That in the opinion of the Inspectors' Department the High School Entrance Examination should not be abolished," and carried unanimously.

WEDNESDAY, APRIL 2ND, 1902.

Officers for 1902:

<i>Chairman,</i>	-	-	-	-	-	R. Park.
<i>Secretary-Treasurer,</i>	-	-	-	-	-	John Connolly, Brockville.
<i>Director,</i>	-	-	-	-	-	Nathaniel Gordon.

After election of officers, Inspector Knight gave notice of motion *re* resolution of East Victoria Teachers' Institute.

Further discussion took place on Inspector Day's paper, which was then deferred; and Inspector Colles read a paper upon "Better Organization of the Inspectors' Department with a View to Influencing Legislation." On motion of Inspectors Campbell and Clapp, the chairman nominated a committee, consisting of Inspectors Colles, N. Campbell and Knight, with J. H. Smith alternate, to report upon the paper for discussion on Thursday morning.

Inspector W. Johnston reported that his committee had waited on the Minister of Education *re* salaries. The Minister had given the committee the strongest encouragement, as he thought both salaries and travelling expenses were altogether inadequate. The committee was given further time to devise ways and means of pressing the matter.

Dr. Tilley took up the subject, "How Should Text-Books be Selected for Authorization," followed by Inspector Campbell. Both gentlemen took strong ground against many of the present text-books, as well as the methods of authorization.

The discussion on this subject was resumed by Inspector Knight at 2 p.m., referring to resolution of the Inspectors' Department on this subject last year.

A scholarly paper upon "The Educational Requirements of To-day" was then read by Inspector W. Johnston, which, after most favorable comment, was ordered to be printed in the minutes.

Professor Dyde, of Queen's University, delivered an inspiring address upon "The Teaching of Literature in the Public Schools." The Professor based his remarks upon experiments made in the Public Schools of Kingston, and his recommendations were eminently practical. After discussion by Inspectors Clendening,

Johnston, Cowley, J. J. Craig, Park, F. F. McPherson (of the Normal College), and Vice-Principal Dearness (of London), the Professor was tendered a hearty vote of thanks.

Inspector Irwin introduced "Centralization of Rural Schools," which was discussed by Inspectors Campbell, Prendergast, Robb, J. J. Tilley, J. Craig and Colles. There was much division of opinion on this subject, most of the inspectors desiring further information.

THURSDAY, APRIL 3RD, 1902.

Session opened at 9 a.m. Inspector Colles brought in the report of the committee to whom had been referred his paper upon "Better Organization of the Inspectors' Department." The report, when amended, was adopted as follows :

1. That a room more retired than the library be provided for this Department.

2. That all discussion upon papers read be limited to five minutes.

3. That a standing committee be formed to deal with all questions involving legislation, and to be known as the Representative Committee of the Public School Inspectors.

4. That the committee consist of five members, who shall be elected by ballot (without nomination) from among the inspectors attending the annual meeting of the Ontario Educational Association.

5. That these members hold office for three years, retiring in such manner as to cause an election each year.

6. That in case of no quorum at any committee meeting, the place of such elected absentee shall be filled in the manner before stated.

7. That all questions before this Department requiring legislation shall be submitted to said committee, which shall continue to sit from day to day, until such questions be fully considered and determined.

8. That no resolution shall be declared carried in committee unless it receive the assent of three members of the committee, and that all questions so carried in committee be considered carried by this Department, unless vetoed by a two-third vote with not less than fifteen members present.

9. That the Legislative Committee, or a quorum of the same, report to the Minister all resolutions bearing upon legislation.

(Signed) W. H. G. COLLES.  
J. H. SMITH.

Moved by Inspectors Houston and Summerby: "That the members of this Department desire to avail themselves of the recent retirement of Mr. Thomas Gordon and Dr. Kelly from their inspectorates to express their appreciation of the valuable services rendered by these veterans to the cause of education during the past thirty years, and at the same time to express the hope that the remaining inspectors appointed in 1871 may long be able to give the people of this Province the benefit of their experience." Carried unanimously.

The Inspectors' Department then adjourned at 10 a.m. to meet the Trustees' Department. Mr. R. McQueen, of Kirkwall, read an excellent paper upon "Our Rural Schools and How to Improve Them." After discussion of this paper, it was moved by Inspectors Colles and Irwin that the number of trustees constituting rural School Boards should be increased from three to six, which was carried.

S. Alfred Jones Esq., Chairman Toronto Public School Board, read an instructive and scholarly paper upon "Poetry in Education," which, after discussion, was ordered printed in the minutes.

Joint session reopened at 2 p.m., with Mr. John A. Leitch in the chair.

Mr. D. D. Moshier, I.P.S., read his paper, "The Public School as a National Factor." The paper gave great satisfaction, and after discussion was ordered to be published in the minutes.

Inspector Silcox followed with a paper which appealed to all, "Three Years Progress in Nature Study in St. Thomas." After discussion the thanks of the Joint Departments were tendered to Mr. Silcox, and his paper ordered printed in the minutes.

President Leitch then surrendered the chair to Chairman-elect Judge Ardagh; and after a hearty vote of thanks to Chairman Leitch for the able, dignified and gentlemanly manner in which he had filled the chair during the session, the Joint Session was adjourned.

The Inspectors' Department resumed in the library at 3.30 p.m.

After further discussion of the report of committee *re* Inspectors' salaries, J. H. Smith, J. J. Craig and R. H. Cowley were appointed a standing committee to consider this question, on motion of Inspectors Clapp and Brown.

On motion of Inspectors Smith and Cowley, the directors were empowered to call a meeting of inspectors during the next session of the Legislature, if deemed advisable.

Association adjourned.

T. A. CRAIG, *Chairman*.

R. PARK, *Secretary*.

### MINUTES OF THE TRUSTEES' DEPARTMENT.

#### FIRST SESSION—TUESDAY, April 1st, 1902.

The Sixteenth Annual Convention of the Public and High School Trustees of Ontario began in the Education Department at 2 p.m.

After the registration of delegates, the President, J. A. Leitch, Esq., took the chair. Rev. W. A. Cook led in prayer.

Mr. Elliott, of Kingston, and Mr. A. Werner, of Elmira, were appointed to report to the press the daily proceedings.

The Minutes of the Proceedings of this Department, April 9th, 10th and 11th, 1901, as printed in pamphlets, were taken as read, and upon motion were adopted.

Mr. C. W. Kelly, of Guelph, and Mr. J. B. Fairbairn, of Bowmanville, were appointed Auditors.

The following report of the Treasurer was read, received and referred to the Auditors:

#### TRUSTEES' ASSOCIATION, TREASURER'S REPORT.

A.D. 1902.

The bills and accounts up to date are all settled, leaving as balance in hand, \$60.10.

#### SUMMARY.

##### RECEIPTS.

Balance from audit of April, 1901 .....	\$ 67 74
Delegates' fees, 1901 .....	114 50
Legislative grant .....	50 00
Total.....	\$232 24

## EXPENDITURES.

Fees paid to Ontario Educational Association .....	\$37 50
Printing pamphlets and circulars .....	41 00
Distribution of pamphlets, letters and circulars .....	13 63
Salary to Secretary-Treasurer .....	50 00
Supply of embossed stationery ; also pamphlet envelopes.	30 01
	<hr/>
Total .....	\$172 14
Balance, \$60.10.	

GEO. ANSON AYLESWORTH,  
*Treasurer Trustees' Association.*

Newburgh, March 31<sup>st</sup>, A.D. 1902.

The Secretary read the following :

## SECRETARY'S REPORT, A.D. 1902.

In May, 1901, there was printed, and in January and February, 1902, distributed along with the pamphlet Proceedings of this Department, a report of an interview between the Hon. Minister of Education, Ontario, and a Committee of this Association appointed to bring to the notice of the Education Department certain resolutions recently adopted by this Trustees' Association.

The state of the Treasury seeming to warrant it, in May stationery embossed with the crest of this Association, was purchased in sufficient quantity to last several years.

Pamphlets, letters, and circulars were distributed as in other years; and the affairs of this Department generally have followed their usual course throughout the year.

GEO. ANSON AYLESWORTH, *Secretary.*

Newburgh, March 31<sup>st</sup>, 1902.

On motion the Secretary's report was received and adopted.

The President, Mr. John A. Leitch, read the Annual Address.

On motion of Messrs. Elliott and Werner, the President's Address was received with thanks, and ordered printed in the Proceedings.

Discussion of the paper published in the Proceedings of the Trustees' Department, A.D., 1901, led by Rev. W. A. Cook, B.A., Thorold.

Lieut.-Col. Lazier, of Belleville, moved an amendment that the present system be not disturbed.

Rev. Canon Brown, of Paris, said he could not vote for the motion or amendment, and moved that a committee be appointed to consider and report next year how best to promote moral and religious influences in the Public and High Schools.

Rev. Mr. Cook withdrew his motion in favor of Canon Brown's, and the Chairman then ruled the amendments out of order, and Rev. Mr. Cook gave notice of motion that the whole matter be referred back for a further report next year, and Canon Brown also gave his motion as a notice.

## SECOND SESSION—WEDNESDAY, APRIL 2ND, 1902, 9 A.M.

The Convention re-assembled, the President in the chair.

The following report was presented :

TORONTO, April 2nd, 1902.

We, the Auditors appointed to examine the books and vouchers of the Treasurer of this Department, beg leave to report that we have found them correct, the balance in the Treasurer's hands being \$60.10.

(Signed)

C. W. KELLY,

J. B. FAIRBAIRN.

On motion the Auditors' Report was received and adopted.

The following were elected :

## OFFICERS FOR A.D. 1902-3.

<i>President,</i>	-	-	-	John Anderson, Arthur.
<i>First Vice-President,</i>	-			J. G. Elliott, Kingston.
<i>Second Vice-President,</i>	-			R. H. Jupp, Orillia.
<i>Secretary-Treasurer,</i>	-			Geo. Anson Aylesworth, New-
				burgh, Addington County.

After the above named officers had been elected by ballot, a committee was appointed to nominate the Executive Committee. The committee made the following nominations, which were confirmed by the Association :

Rev. John Crawford, B.A., Niagara Falls; Robert McKnight, Owen Sound; John Parry, Dunnville; J. W. Wood, M.D., Kirkfield; John McLaren, Orangeville; J. B. Fairbairn, Bowmanville; C. W. Kelly, Guelph; and His Honor, Judge J. A. Ardagh, B.A., Barrie.

In addition to the above-named officers and elected members, the Executive Committee includes, *ex-officio*, ex-Presidents Farewell, Bell, Somerville, McCracken, McRobbie, Lazier, Dow, Jackson, Burritt, Deacon, Creasor, Brown, Chown, and Leitch.

Mr. James H. Burritt, B.A., K.C., Pembroke, was nominated by the Executive Committee as Director from the Trustees' Department to the Executive of the Ontario Educational Association. At a later stage this nomination was confirmed by the Association.

#### BIBLE IN THE SCHOOLS.

The result of the discussion of the Bible as a text for literature was that a committee was appointed to report next year on how best to promote moral influences in the Public and High Schools. The word "religious" in the original motion was struck out. The committee were: Rev. W. A. Cook, B.A., Thorold; Robert McQueen, Kirkwall; Rev. Canon Brown, Paris; Rev. John Muir, Grimsby; J. McLaren, Orangeville; J. G. Elliott, Kingston; J. B. Fairbairn, Bowmanville, and S. F. Lazier, K.C., LL.B., Hamilton.

Mr. J. C. Rogers, B.A., Hawkesbury, read a paper on "How to Keep our Schools Progressive."

On motion of Messrs. Burritt and Anderson, the paper read by Mr. Rogers was received with thanks, and ordered to be printed with the Proceedings.

#### THIRD SESSION—WEDNESDAY, APRIL 2ND, P.M.

The Trustees' Department re-assembled, the President in the chair.

The President reported that the Executive Committee nominated Mr. J. H. Burritt, B.A., K.C., etc., as Director for the year 1902, from this Department to the Board of Directors, Ontario Educational Association. The Convention unanimously confirmed the nomination made by the Executive Committee: and also received and adopted the recommendation of the Executive Committee, that the allowance to the Secretary be \$60.

Mr. John Millar, M.A., Deputy Minister of Education, entered the convention.

The question of entrance examinations was dealt with by Rev. John Crawford, of Niagara Falls, and Dr. Noble, of Toronto, in two interesting papers, but a motion to provide for a change in the pres-



ent system by giving credit for class standing during the year and adding oral examinations, was defeated.

Mr. W. H. Sutherland, of Rayside, read a paper on "Should Public School Teachers' Remuneration be Increased? Why? and How?"

On motion of Messrs. Wright and Scott, Mr. Sutherland's paper was received, adopted and ordered to be printed in the Proceedings.

A memorial to the Minister of Militia was endorsed, asking that cadet corps be supplied with Morris tubes and ammunition for practice purposes.

Mr. J. G. Elliott, of Kingston, delivered an address entitled "Which Way," advocating more thoroughness in the primary classes and the abolition of entrance examinations.

A motion that more general meetings of the Association be held was rejected.

The Convention adjourned for the day.

#### THURSDAY, APRIL 3RD, 1902.

At 10 o'clock a.m. began a joint meeting of the Trustees' and Inspectors' Departments, Mr. John A. Leitch, of Brantford, presiding.

Mr. Robert McQueen, of Kirkwell (Mr. McQueen was teacher in one school throughout thirty-two consecutive years), read a paper on "Our Rural Schools and How They may be Improved."

On motion of Messrs. Sutherland and Wallace, it was resolved that Mr. McQueen's paper be received and printed in the Proceedings.

Moved by Inspector Colles, seconded by J. W. Garvin, and resolved that in the opinion of this union meeting of Public and High School Trustees, and Public School Inspectors, Boards of Rural School Trustees should consist of six members, two being elected annually instead of one as at present.

Mr. S. Alfred Jones, Chairman of the Public School Board, Toronto, read a paper on "Poetry in Education."

On motion of Mr. Aylesworth and Rev. W. A. Cook, B.A., it was resolved that Mr. Jones' paper be received, endorsed, adopted, printed, distributed, and recommended.

At the Thursday afternoon session Mr. D. D. Moshier, B.A., delivered an address on "The Public School as a National Factor." He discussed the right and wrong spirit of patriotism; and Judge Ardagh asserted that jingoism was the result of the latter.

A paper on "Two Years' Progress in Nature Study in St. Thomas Public Schools" was read by Mr. S. Silcox, B.A., B.Paed.

A hearty vote of thanks—Judge Ardagh having been moved into the chair—was passed to the retiring President, Ald. J. A. Leitch, of Brantford, to whom was attributed in no slight degree the success of the meeting.

After President Leitch had briefly responded, the Convention was closed, the benediction being pronounced by the Rev. J. H. Chant, of Newburgh.

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## FINANCIAL STATEMENT

OF

## The Ontario Educational Association.

1901-1902.

## RECEIPTS :

Balance from last statement .....	\$395 53
Membership Fees .....	331 00
Annual Grant, Ontario Government.....	600 00
Advertisements .....	181 00
Sale of Proceedings.....	134 07
	<hr/>
	\$1,641 60

## PAYMENTS :

Convention Expenses and Music .....	\$39 50
Secretaries of Departments .....	60 00
Trustees' Department, to cover cost of Printing, Mailing and Postage, 1902 .....	50 00
Reporting—Evening Addresses. ....	33 40
Printing—Circulars, Cards, etc.....	12 85
Expense of Advertisements.....	39 00
Printing and Binding Proceedings.....	722 78
Salary of Treasurer ....	20 00
Salary of Secretary .....	100 00
Postage, Mailing, Express, etc. ....	19 17
Board of Directors, Railway Fare, Attending Meeting in November...	57 45
Balance .....	487 45
	<hr/>
	\$1,61 640

Respectfully submitted.

R. W. DOAN,  
*General Secretary.*

W. J. HENDRY,  
*Treasurer.*

We, the undersigned auditors, hereby beg to report to the Ontario Educational Association that we have carefully examined the books and vouchers of the Treasurer, and have found them correct. The balance on hand at the close of the fiscal year is \$487.45.

Respectfully submitted.

JOHN DEARNESS, }  
WM. LINTON, } *Auditors.*

April 3, 1902.

## GENERAL ASSOCIATION.

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*SPEECH OF HON. R. HARCOURT AT THE OPENING  
MEETING OF THE ONTARIO TEACHERS'  
ASSOCIATION, NORMAL SCHOOL  
BUILDING, APRIL 1st, 1902.*

After expressing his pleasure at seeing an old college friend, Mr. Henderson, President of the Association, in the chair, Mr. Harcourt said :

I welcome you not in my own name only, but also in the name of the Government, and so far as I may do so, in the name of the Province, to these buildings, devoted as they are to the Educational work of the Province.

I welcome you because as representative men and women there is reposed in you a most important trust. Your work, and I would it were the life work of a greater percentage of your number than it is, is a work of momentous importance, that of educating the youth of our land, of guiding them, of forming their habits, moulding their dispositions and the shaping and building of character generally. There could not be more important work assigned to any body of men or women than the work you are called upon to do.

It has been my good fortune to be pleasantly associated for many years past with teachers of all grades. I assure you that I will always be anxious in any way in my power to render you substantial aid. If I could be instrumental, even in a slight degree, in raising the status of the profession, in increasing your influence and usefulness, I would be gratified, since I know that in so doing I would be rendering valuable and lasting service to the State.

During the last year or two especially I have had frequent opportunities of meeting officially, in these buildings, our teachers of all classes, our inspectors, and members of School Boards as well. All of these are represented at this meeting and are closely bound together by mutuality of interest and aim.

It has further been my good fortune for some time past occasionally to meet many of our teachers and trustees in different parts of the Province at public gatherings. On all sides I find, you will be glad to know, that there is manifest an earnest desire to strengthen our educational defences, to hold fast the good we have, and to gain ground in fields old or new wherever and whenever possible. Speaking generally, I am greatly pleased with our large army of teachers. I am constantly making this statement elsewhere, surely I may be allowed to repeat it here. If our teachers be well equipped and earnest, appreciative alike of their privileges and responsibilities, may we not be very hopeful of the future? Given a bright enthusiastic, tactful, well-trained teacher, and the work of the school must be satisfactory. It could not be otherwise. The work is unsatisfactory in those few instances alone where through want of training, tact, or enthusiasm the teacher is ill-equipped and not adapted to his work. Because of these considerations I am very anxious, Mr. Chairman, to keep most prominently and constantly in view the extreme desirability of increasing the efficiency and strengthening the training of our thousands of teachers. The great, important, and ever present problem is how to accomplish this object. With this aim in view what changes if any are needed in our various curricula of studies? Are we at the present moment unduly accentuating the importance of some studies to the neglect of others?

If after most careful and thoughtful deliberation, changes are considered necessary, should they not be introduced gradually, and the result attained by easy transitions? How can we most effectually encourage our young teachers to improve their equipment, to continue their studies, professional and non-professional, and thus to make themselves more and more useful and influential in their respective committees?

It is often observed that "The nation which does not grow, decays." The same truth applies to individuals, and with peculiar force it applies to teachers. The true and earnest teacher should grow in knowledge, tact, power and influence day by day, and to this end he must never cease to be a close and observant student. Given such a teacher, and I repeat, all obstacles are overcome.

Our position educationally in this Province is noticeably strong and enviable largely because the great majority of our teachers are unfailingly true to this high ideal.

## NORMAL SCHOOLS.

It is because I hold these views, because I think, in common with you all, that the foundation of successful educational work depends very largely upon the teacher himself, that I am very anxious to see early provision made for a fourth Normal School to be located somewhere in the northern part of the Province. For this same reason it is that I desire to see the courses of instruction at our Normal Schools and county model schools broadened, and the term of each of them considerably extended. You can render me great assistance by constantly directing public attention to our educational needs in these directions. Our existing provision for training teachers is much better—noticeably so in the case of the professional training we provide for secondary teachers—than that in many older countries, and yet in the directions indicated there is room for great improvement. It is pleasing to know that the number of our teachers holding first-class certificates has doubled since 1883, and that the number holding second-class certificates has increased sixteen per cent. in the interval. The number holding the lowest grade is about one-half of the total number. It is also interesting to know that about twenty graduates and specialists are engaged in the important work of the continuation classes. The further fact that of the 573 high school teachers who were teaching in 1900, no fewer than 439 of them were specialists is very significant. The number last year was somewhat larger. All this indicates the high professional standing of our teachers.

England is behind other countries in the matter of trained teachers, and her educational reformers clamour loudly and persistently for improvement.

For example, Mr. Yoxall, M.P., himself formerly a teacher, and a recognized champion of the teaching profession in and out of Parliament, complained only recently of their need of duly trained teachers, and alluded to what he called "the 77,000 puerile and uncertified teachers with which the schools are set to make shift even to-day." Only 44 per cent. of the teachers in England and Wales are duly certified, 56 per cent. being partially or wholly unqualified. Dr. McNamara, also a member of the House of Commons and an old teacher, is reported as saying "roughly throughout the rural areas (of England) only one-third of the teachers are properly qualified adults. The other two-thirds were either juvenile pupil teachers or unqualified young people, with little or no claim

to the genuine title of teacher. There was only one certificated teacher to every ninety village children in the country."

According to the official reports, there are 28,426 juvenile apprentices to the art of teaching, called pupil teachers, in England.

The City of Philadelphia has the honor of having founded the first State Normal School for the education of teachers in the United States. This school was founded in 1818. There are now 167 Normal Schools in the United States, besides almost an equal number of private schools for training teachers.

In Pennsylvania alone, there are thirteen Normal Schools, and in these the course of study was recently increased from two to three years.

Massachusetts, with a population of 2,500,000, has ten excellent Normal Schools. We should, to meet our wants, have, at the earliest possible moment, at least another Normal School.

A special feature in her educational system of which France may well be proud, is her Normal Schools.

The teachers in Germany have no superiors the world over. View the question as you will, all must admit that the matter of training our teachers is of the greatest importance.

In this connection, Mr. Chairman, I desire to read two letters addressed to me by the able and experienced principals of our Normal Schools at Ottawa and Toronto. Before the Christmas holidays I asked them to visit some of the important educational institutions in the United States, and in these letters some interesting comparisons are drawn, and, I am glad to say, not to our discredit.

FEBRUARY 1st, 1902.

DEAR MR. HARCOURT.—Now that the work of the present session of the Normal School is moving along in the usual quiet, steady effective way, I shall take the earliest time I can spare from my school duties, to give, in some detail, with the assistance of my colleague, Principal Scott, an account of what we saw in the educational institutions you kindly commissioned us to visit in our late tour through "the States."

But, in the meantime, I think it right to say that, while my colleague and I found on the other side, for educational purposes, enormous resources and thoroughly equipped schools, where no money, skill or taste has been spared in perfecting appliances for all kinds of study, we found that for sound, practical work, work of fitting

the boy or girl to take his or her place in practical life, our own Ontario schools are superior.

We visited two Universities—Columbia University and Chicago University, and the Normal Schools of New York, Philadelphia, Providence, Albany, Chicago and Ypsilanti.

The best lecture we heard while away, we heard in Columbia, New York City, and this lecture was by a native of Ontario, Prof. McVannel, who was selected by the acting Principal, Dr. Butler, to take some of the Principal's philosophy classes. And in telling Prof. McVannel the object of our tour, we heard from him, too, the assurance that we would not find in United States classes that solid work and training which we give in Ontario. This must be gratifying to you as Head of the Educational Department, and to all the friends of education in the Province. Yours faithfully,

(Signed) JOHN A. McCABE.

The HON. RICHARD HARCOURT, M.A., K.C.

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The HON. R. HARCOURT, Minister of Education.

DEAR SIR,—It will afford me much pleasure to prepare, in conjunction with Dr. McCabe, a report of our recent visit to various Training Schools for teachers in the United States at as early a date as possible, but in the meantime it may not be out of place to say that I was greatly benefited by the visit.

The points that impressed me most as being worthy of note were perhaps three :

1. The very excellent equipment of these schools. Every facility is provided for doing first-class work. No expense seems to be spared in fitting them for achieving success.

2. In general the scholarship of those who were being trained showed that their academic work was, to say the least, not the equal of those with whom I am dealing. In this respect, I feel that my tour of inspection did me much good in enabling me to make a comparison between the literary and scientific preparation of our teachers and those elsewhere. Students of even more mature years than those in Ontario Normal Schools were often found grappling, as a class, in no very successful way, with problems which are usually disposed of either in the higher classes of our Public Schools or in the junior forms of our High Schools.



To know that the scholarship of teachers elsewhere is, in many respects, not equal to that of ours, has the tendency to make one better satisfied with the present plan of academic preparation of our students.

3. In the Practice Schools, the boys and girls are taught to express themselves very well, although the content of the subject was, in general, much below what is expected from a similar grade of pupils here.

While it must be admitted that our schools are not so perfectly equipped as those visited, I am sure it will be a source of gratification to you and to all friends of education in Ontario to know that in all that goes to lay the foundation of a solid education in self-control, in individuality, in ability to put forth independent effort, our schools are at least the equal of those in such old centres of population as Philadelphia, New York, Providence and Albany, and superior to them in scholarship. I have the honor to be, sir, your obedient servant,

(Signed) W. SCOTT.

The teaching profession is gaining in rank and dignity. I ask you to remember that Harvard University has placed her Department of Education on a par with other university work. The head of this department ranks as a full professor, enjoying the same dignity and influence. This surely is a triumph for professional education.

#### EDUCATIONAL PROBLEMS.

You will, when in session, be called upon to take part in the discussion of problems everywhere attracting attention. Each age and time has its own peculiar religious, educational and political problems, and different countries may seek to solve them in different ways.

Ever changing conditions, altered environment, the steam engine, the telegraph, the telephone, the trolley, startling electrical discoveries and attendant upon them new industries revolutionizing trade and commerce, the daily paper, cheap books and magazines within the reach of everyone, the crowding of people into towns and cities,\* all these give rise to new conditions and create

\*Two Englishmen out of three live in towns; one-tenth of the population of the United States lives in New York, Chicago and Philadelphia.

new problems. There is universal educational unrest—there always will be unrest, and it is due to the plain fact that the problems of education have multiplied, and that most of them are absolutely new.

That we have our own problems, that some of them are difficult of solution need not discourage us, since every progressive community finds itself in exactly the same position. There is not, there cannot be, and it is not desirable that there should be, finality in educational matters. Finality, it is to be feared, would mean not progress, but stagnation. Unrest in such cases simply means a desire and a yearning for still further and higher achievement. The system or the course of study, the regulation or the text-book, suitable at any one time, may be lacking and inadequate a few years thereafter.

The last decade has been noticeably one of school reforms, and problems connected with secondary education have in a marked degree held the attention of the best minds in the most progressive communities. For example, a conference at Berlin in 1890 led to a revision of the curricula in the schools of Prussia. The report of the committee of ten in the United States, issued in 1894, led to important results. The work of a Parliamentary Committee on Secondary Education in England in 1895 marks an epoch.

The report of a committee appointed by the French Chamber of Deputies in 1899 deserves notice in the same connection. In a word, the most advanced nations the world over have been attempting as best they could to solve the educational problems which new conditions have imposed.

A distinguished authority in educational matters in England, a member of the House of Commons as well, to whom I referred a moment ago, recently said: "The horizon is thick with coming questions. Education in this country is still, as a whole, chaotic and disorganized. A truly national, complete and rational system has yet to be evolved. The question of higher primary education, its infringement on technical and secondary education, the relation between these and the University education, the bettering of school attendance, the lengthening of the child's school life, amendments of curricula, the creation of an efficient inspectorate of schools, the improvement of training colleges for teachers, etc., etc., are some of the questions which crowd upon the horizon."

In addition to unrest and agitation there is not infrequently bitter controversy as well.

For instance, Sir John Gorst, Vice-President of Committee of Council on education in England, in a speech delivered in Parliament attacking the London School Board, recently said: "The education which you are spreading among the people is cheap, shoddy education. No other proof of this is required than the success of *Answers*, *Tit-bits* and third-rate novels. Are we to keep up in this House the farce that School Boards are elected for educational purposes? Everybody knows that educational purposes are the very last ideas in the minds of the members of the School Boards. And none know better than the members themselves."

Let me give another illustration of how the experts and critics differ. An inspector of schools in London, England—a learned man, of course—in his last report, says that "the cry of too many subjects is destitute of foundation." Another inspector of London schools, also a learned man, assures his readers that "the rapid multiplication of subjects within recent years must also be regarded, as in some measure, a cause of much want of thoroughness."

#### CONFLICT OF OPINIONS.

Moreover, those who have become prominent as heads of colleges, learned men, educational experts so to speak, in advocating school reforms, such is human nature, hold directly antagonistic opinions.

Dr. Harris, for example, the Commissioner of Education in the United States, who has rendered signal service to the cause of education, holds views on various educational subjects directly opposed to those so ably and earnestly advocated by Dr. Stanley Hall.

Similarly, Professor Munsterburg, of Harvard, combats vigorously the educational dogmas of Prof. Sully, of England, and also of Prof. De Garmo, of Cornell. In this way almost every educational question is a matter of dispute. Great men, recognized as educational authorities, differ widely in their views concerning even essential principles.

In the meantime, while these controversies are going on, and sometimes they result in more heat than light, we are all glad to know that the schools and colleges the world over, are doing excellent work, gaining ground continually, always aiming at greater achievements, reaching and influencing for good to a greater degree, than ever before, all classes of people.

It would never do to stand still and wait until the experts and

critics had come to an agreement. Earnestness, unrest and anxiety, are, I repeat, the very opposites of degeneracy.

Transition, change, evolution, progress and not finality, such is the all pervading law of the universe, and it is to be expected to obtain in educational matters as in everything else. Systems and policies must give way to relentlessly changing conditions.

The interest manifested everywhere in educational work is most encouraging. Men of wealth are contributing large sums of money in support of schools, colleges and libraries. In the United States alone last year, no less than seventy millions of dollars were given by private individuals—all honor to them—for educational objects.

On the occasion of the last commencement day at Harvard, the President read out a list of donations given during the year to the University of over a million and a half dollars, and the very same day at Yale the President of the College announced the completion of their two million dollar fund.

#### SIR W. C. MACDONALD AND THE LATE MR. MASSEY.

In this Province we must not forget the thoughtful generosity of Sir William C. Macdonald, of Montreal, whose princely gifts to McGill University have made his name dear to University students and graduates the world over. His recent gift to this Province of \$125,000 to be devoted to Domestic Science, Nature Study, etc., calls for an expression of gratitude on the part of this Association. In like manner and for a similar reason we will hold in loving memory the name of the late Mr. Massey whose timely and handsome gift of a library building, costing forty thousand dollars, for the purposes of the Agricultural College at Guelph, we should, as an Association of teachers, formally and gratefully acknowledge. The example these gifts afford, will lead, let us hope, ere long to other like benefactions. These gifts in a special sense result in lasting good.

Sir William C. Macdonald and Mr. Massey recognized that our methods of agriculture are not as scientific as they should be, and that only through our schools and colleges can the desired aim be reached. Agricultural schools and colleges can be made to contribute very largely to our powers of production both in quantity and quality. To bring about increased production a knowledge of the natural sciences, the chemistry of soils and plants, a knowledge of animal physiology, of horticulture and viticulture is a powerful

aid. Intensive farming, as it is called, will certainly augment the value of our farm products. For no man, is a technical and liberal education more necessary, than for the farmer. The German people fully appreciate this fact. There are 10,000 pupils in the schools of agriculture in Prussia.

#### LIBRARIES.

A word hurriedly, Mr. Chairman, as to some phases of education in which you will have noticed that I have taken a special interest, and as to which I know I have your kind and hearty co-operation. How true is it, after all, that our boys and girls very often learn more by their own observation and reading than the school-master can do for them. Therefore I am interested in the library movement. How much would be gained if the home and the school would work in concert. With good and cheap books and periodicals so easily within our reach the life of the average citizen with proper surroundings could be made a continuation of school life. The story of a life may turn on the inspiring influence of a single book. One of President Lincoln's biographers, in speaking of him, says: "His great career hinged upon the fact that his mother had six books. In that circumstance he differed from the other boys of the region. Is it too much to say that but for that ray of light his great soul would have been strangled in the birth?"

You all know what we have sought to accomplish through our system of Travelling Libraries. These are intended for our new districts, in which, as yet, there are no Public Libraries of any description. The Legislature was unanimous in heartily supporting me in this and similar progressive movements. These libraries are very popular in several of the United States. Thirteen of them have been in circulation, in Northern Ontario during the year. Our short experience, in sending out these libraries, is very satisfactory. You have noticed that in different parts of the United States a system of Travelling Art Galleries has been inaugurated.

This last Session, the House gave me an appropriation for Libraries for rural school sections for every part of the Province. I hope to have regulations framed, within a week or two, so that advantage may be taken of the grant immediately after the summer vacation. We will follow the principle which governs our entire system, viz., that of aiding and supplementing local effort. We will commence by offering a small grant to any section which will supplement it by a sum twice as large, the amount to be spent in

books to be selected from a catalogue prepared by the Department; the library, of course, to be kept in the school building itself. The system of Public Libraries, and we have over four hundred of them which are aided by the Province, in some of its details, can, I think, be improved. My department is gathering information on the subject.

#### HOME ECONOMICS AND MANUAL TRAINING.

\* I am anxious to encourage the teaching of nature study, domestic science and manual training. The highest authorities are agreed as to its great value. What I seek to accomplish involves no disturbance whatever of our existing curriculum. The new studies are a help rather than a hindrance to the old. There need be neither displacement nor antagonism. If our methods have been too bookish, the addition of the new studies will furnish effective relief.

We are so apt to forget an important fact which should not be lost sight of for a single moment, and which is not peculiar to any one country, viz., that the great majority of our children leave school at a very early age. We therefore, Sir, should, in the short time they are under our control, give them instruction, first of all, on lines and in directions which will be of direct, practical use to them, when they leave school.

Let me illustrate, Mr. Chairman, exactly what I mean. We had last year—

In the 1st reader, 177,614 scholars

"	2nd	"	88,836	
"	3rd	"	94,069	
"	4th		84,507	
	5th		17,468	"

A well-known educational authority has well said, "The great majority of scholars leave school at the age of thirteen or fourteen. What is to be the nature of their work? Chiefly the production of material things. Hence, since so much of their life will deal with material objects, the training of hand and eye in connection with them is one of the first elements of training which these children, who are to be workers, should receive."

Well may we, therefore, seek to familiarize our boys, when at school, with the use of tools, and make it possible for our girls to learn plain sewing, cooking and other things connected with the

art of housekeeping. To prolong the period of school life then is a great and pressing problem.

The number of scholars in the two lower forms of the High School is twice as large as that in the two higher. The number in the fourth or highest form is not one-fifth as large as that of the first or lowest form.

In England and Wales the position of things is more disappointing still, since only 35 per cent. of the attendance at elementary schools is over ten years of age. In view of these facts, then, is it not very evident that the work taken up in our Public Schools should have special reference to the needs of the masses of the people, whose life-struggle begins at such an early age?

Our High Schools, I am glad to say, provide secondary education for all classes in the community. Because of this fact they are firmly established in the sympathy and confidence of our people generally. In a recent year, for example, 6,481 students left our High Schools: of these, 499 entered the learned professions, 1,050 became farmers, 1,436 became teachers, 1,491 entered commercial life, and 2,005 engaged in other unclassified callings.

I mention our Public and High Schools in conjunction. We cannot separate them, so closely are their interests interwoven. A great authority has wisely said, "it is only when these (Public and High Schools) are in close organic connection under the same local management, and pervaded with the same atmosphere, that the child of the working classes is likely to be benefited by them." With a close touch between them, you may extend the school life three or four years to his incalculable benefit.

In Scotland the constant aim has always been to extend school life. In that country 29 per cent. of the scholars in the secondary schools are over fifteen years, a much better showing than in England. Need we wonder, then, at the success in all walks of life of the Scotchman? I have so frequently discussed at public gatherings the question of technical education that I need now only remark that we are making very satisfactory progress indeed in laying the foundations.

#### TECHNICAL EDUCATION.

I desire to announce that with a view to give teachers some elementary instruction in certain departments of technical education, a summer school, under the direction of the Department, will be held at the Normal School, Toronto, beginning Wednesday, July

2nd. The courses of study will embrace Manual Training, Domestic Science, Nature Study, Drawing and Music. Lectures will be given by specialists in the different subjects. No fees will be required; and students or teachers desiring to attend should make application to the Deputy Minister of Education.

I noticed with pleasure, in a newspaper published in Berlin this week, that the various School Boards of Berlin and Waterloo (Public, Separate and High School) have decided to arrange for the teaching of Manual Training and Domestic Science jointly, and that in a few months a new building, to cost \$12,000 or \$15,000, will be erected to be devoted solely to this work.

### PROGRESS.

That we have made great advances educationally during recent years is very apparent. And it is equally apparent that there is room for growth and improvement in almost every direction. This applies to every phase of human development. The youngest person in this room remembers when the University was first opened to women. No fewer than 277 girls have graduated during the past seventeen years, pursuing the same studies as the boys, and capturing their full share of honors and distinctions. One hundred and thirty-seven girls are now proceeding regularly to a degree, and there are sixty-two occasional students as well. This fact indicates progress, the value of which is almost beyond estimation. Not a few of our girl graduates are occupying important positions in the schools and colleges of the United States. It is becoming a common occurrence for our young men to win promotion and preferment as lecturers and professors in leading universities across the line.

In other respects rapid progress has been made in the expansion of University work. As we know, the Government a year ago assumed charge of the important departments of Chemistry, Mineralogy and Geology, and the salaries of the professors and the maintenance of these departments are now met out of Provincial funds. These studies bear so directly on the development of the mineral and other natural resources of the Province, the extent and value of which are only beginning to be appreciated, that from the standpoint of trade and commerce alone the generous encouragement of them becomes a pressing necessity. Every



friend of education in the Province will commend this forward step.

The School of Practical Science, never as prosperous or as popular as now, its many graduates unfailingly securing important positions, has so outgrown its accommodations that it became necessary to erect for the use of its students another large building.

Canada stands in need of highly trained mechanics, surveyors, engineers, chemists, assayists and metallurgists. Our High Schools are becoming more valuable year by year, and our people are generously supporting them. And all this progress enures to the benefit of the whole community, for let it be remembered that educational forces, as is so often said, pull from the top; they do not push from the bottom.

#### SUGGESTIONS FOR THE FUTURE.

A word of the future, Mr. Chairman, and I will close. I hope to see at an early date a Chair of Forestry established in the University. We have set apart several extensive parks, and vast forest reserves. We should also have systematic teaching in forestry. In a commercial sense alone such a department means a vast addition to our natural wealth, as well as conserving the wealth we have. We must not delay taking the forward step. Forestry is one of the coming professions. The State of New York has established a College of Forestry in connection with Cornell. The entire Senior class had lucrative positions offered them some time previous to graduation. A large tract of forest land has been set aside, where the manner of harvesting the old crop and starting the new crop is being demonstrated.

Yale, similarly, owns a large tract (for demonstration) in Pike County. Pennsylvania owns 324,000 acres of forest lands.

#### COMMERCIAL STUDIES.

It may not be generally known that a Commercial Department, in which our Boards of Trade are taking a special interest, and which is sure to grow in importance, has been provided for at the University. I have said that upwards of two hundred girls are now attending the University. Not a few of them will find lucrative and useful employment as teachers of Domestic Science. Some of the branches of this department of study are physics,

chemistry and biology, as they are applicable to the art of house-keeping. Would it not be well for the University authorities to make special provision for girls who desire to take this course of study and qualify themselves for teachers?

### CONSOLIDATION OF RURAL SCHOOLS.

In this way the best possible provision could be made for the scientific side of their equipment. May I not suggest that you can very usefully confer and deliberate concerning the matter of the consolidation of Country Schools? Consolidation had its small beginning in Massachusetts. It has passed the experimental stage and to-day it is well and satisfactorily established in all the New England States and in parts of Ohio and Pennsylvania. I hope that before the year expires the experiment will be tried in more than one locality in our Province.

The necessary legislation to make it workable was provided for this last session. Like all real reforms the movement in this direction must grow.

During the year my Department has sent to School Boards reports and bulletins giving information bearing on this very important movement.

The annual meetings of this Association have in past years proved extremely useful in the way of criticism and suggestion alike. I know that this meeting will likewise lead to good results. The question of the evils incident to examinations is always suggestive of discussion. The extreme view is that the examiner is a parasite on the educational system, and like all parasites injures that from which he draws his sustenance.

We must not allow the work of education to be dominated by examinations. The more reasonable view seems to be that examinations form as essential a part of true education as investigation itself. Examinations within rational limits serve an excellent purpose, and to some extent they are, in the opinion of everyone absolutely indispensable.

"Whoever thinks in an examination is lost," said an eminent Cambridge tutor. His friend aptly replied, "Perfectly true, but in this imperfectly constituted world, what is to take the place of examinations?"

When we next revise the regulations, would it not be well to have only one examination for Junior Leaving instead of two?

The existing division was due, as you know, to the action of the Senate of the University respecting matriculation. The Senate has recently reverted to the former plan of having only one examination for matriculation. If we decide to have no departmental examinations affecting High School work until pupils complete form three in the High School, it will be a great relief to both teachers and students.

In conclusion, Mr. Chairman, I wish publicly to express my full appreciation of the uniform kindness, sympathy and courtesy extended to me by the teachers, trustees and inspectors of the Province in all my official relations.

*SOME EDUCATIONAL NEEDS.*

J. HENDERSON, M.A., ST. CATHARINES.

In returning thanks to my fellow-teachers for the honor they have conferred by electing me to preside over their deliberations, I am not insensible of the responsibility that such an honor entails, nor am I so vain of my own ability as not to realize the fact that among the teachers of the Province there are many who could fill the position much better than myself. In looking over the list of the past Presidents of the Association—some still with us, but others there are whose loss we regret and whose memory we revere—it was not without some misgivings that I was induced to accept a position that had been filled by men who have done something to make their lives not altogether spent in vain. I shall, however, with the assistance of my fellow-teachers, endeavor to do my best, and I trust that any deficiencies that may be observed in the performance of my duty may be regarded with that forbearance which is always characteristic of the true teacher.

The Ontario Educational Association is a complex body. It is not many years since a comparative handful of teachers were accustomed to meet from year to year in the sweltering days of the month of August, in solemn deliberations round a small table in some room in the Department buildings and tried to solve the educational questions of the day, for even in that golden age troubles and trials fell to the common lot of the teacher. If they did not accomplish much, it was not from lack of zeal in urging their views. That was the day of small things. Within the last few years, however, this comparatively insignificant body has developed into the present Association, or rather, I was going to say, Educational Parliament, for we were assured by the Deputy Minister last year that our deliberations were matters of deep concern to the Minister and his colleagues in the Government. While it is pleasant to see the Association widening its boundaries so far that it embraces within its fold all departments of educational work from the kindergarten to the university, still from its very complexity it is apt to be ineffective. Do not for a moment imagine that I am trying to minimize the importance of its deliberations. But if the deliberations are to have any value at all, the questions discussed should have a practical bearing on the difficulties that the teacher meets with in his actual work, and there

should be more unanimity in the Sections themselves. Composed as this Association is of so many different Departments, with all their sectional interests and, shall I say, prejudices, it may not be an exaggeration to remark that it is too complex to carry out the ends and aims the original promoters of the Association had in view. So long as the delegates of a Section or Department devote their time in discussing questions of purely literary or scientific interest, as for example, "The use of the Greek Aorist," "Hall Caine," or "The Mathematics of the Minus Sign," everything is apt to be as smooth as a summer sea, but when they start discussion on some practical question bearing on our school work, as "The High School Programme Examinations," or in fact whenever they venture to give some friendly advice to the Minister of Education in connection with the management of his Department, immediately a storm arises, and the question is often settled in a manner equally unsatisfactory to the Minister and to the delegates.

In saying a few words to my fellow-teachers, I wish it, first of all, to be understood that I believe we have a good system of education for Ontario. That it has its defects is a statement that may be made of any school system in existence, for we are constantly reminded that there is nothing perfect under the sun. That our educational authorities are trying from time to time to adjust our system to the changing conditions of our educational requirements is only a practical application of the old Latin adage :

*"Tempora mutantur nos et mutamur in illis."*

The Public School system is a child of the past century, but in that century fraught with so many industrial and social changes ; every school system in existence has been in the process of change.

But while our Public School system is still in a state of infancy, it is still a child of vigorous growth. It is subject to changes and will always be subject to them to meet the new conditions that may arise. From the days of Dr. Ryerson's famous Act of 1851 to the present time, our country has witnessed an era of great development in material resources, and the era of prosperity has had a direct influence on our school system. We are often reminded that this is an age of expansion, and in no department is expansion more in evidence than in the matter of education.

But with all this development, we have yet much to learn and are far from the mark to which as a people we hope to attain.

We have defects educationally—defects, too, that must be remedied if we wish to hold our own among the nations of the world. In examining the recent (1901) report of the Minister of Education, we find the attendance of our school population very irregular, our teachers are wretchedly underpaid, our rural population sadly in need of intellectual food owing to the almost universal absence of school libraries in our country districts, and many other defects may be mentioned that should make the would-be-perfectionist in education pause and think. It is a sad thing to realize the fact that while in Ontario the means of education are so universally bestowed that so many do not avail themselves of its advantages, the effect of such a state of affairs can only work evil, and that continually. We are told by those whose statements are reliable that in many parts of Ontario there are many of our young people growing up who are unable to read and write. We have a compulsory Act on the statute book—the Truancy Act of 1891—and when it was passed many were in hopes that the Act would be enforced. There can be only one argument against its enforcement, and that can hardly be called an argument—that the Act is an unwarrantable interference between parents and children, which means that parents have an unalienable right to bring up their children in blissful ignorance if they choose to do so. There can be no greater danger to the community than illiteracy. From the illiterate of our population is recruited every year the bulk of our criminals. If they do not actually become criminals, the illiterate at least form an easy prey to the idle agitator, the scheming demagogue, the political trickster or the unprincipled ward-heeler. If the public has a right to interfere in the matter of education at all, it surely has a right to protect itself in this more than in anything else. Some parents may, and do, object with some show of argument, when a child is compelled to take up in school some study that the Department may think it right to prescribe on the curriculum. Almost every teacher in the profession has been often confronted with the argument that a wealthy bachelor offers when he objects to pay taxes which go to maintain the Public and High School in which the sons or daughters of his poorer neighbors are being educated. There may be even a faint gleam of reason in the argument that the man uses who is compelled to support higher education, if he believes that education, so far as the State is concerned, should end with the Public School. But we have no hesitation in maintaining that there is absolutely

no argument at all in allowing parents in the country where education is within the reach of all to neglect the training of their offspring. The State should enforce the law and see that children who cannot protect themselves are protected. If education is a universal right, it should be shared in by all the members of the community.

There is, however, a still more important reason why the law should be enforced. Every voter must have intelligence in the exercise of his franchise if the country is to be well governed. It is simply the height of folly, or rather worse, to put the voting power in the hands of an ignorant electorate. If the Government of Canada is to be saved from the bossism of the United States, the people must be taught their duties as citizens, and as citizens they must vote with intelligence and discernment. I cannot in this connection do better than quote the words of Daniel Webster, words that may with equal truth be applied to Canada. "On the diffusion of education among the people rests the preservation and perpetuation of our free institutions. I apprehend no danger from a foreign foe. . . . Our destruction, should it come at all, will be from . . . the inattention of the people to the concerns of government; from their carelessness and neglect, I confess, I do apprehend some danger. I fear that they may place too implicit confidence in their public servants, and fail properly to scrutinize their conduct; that in this way they may be the dupes of designing men and become the instruments of their undoing. Make them intelligent and they will be vigilant; give them the means of detecting the wrong and they will apply the remedy." To these wise and prophetic words of Daniel Webster, Dr. Harris, the United States Commissioner of Education, says: "We are making the experiment of self-government—a government of the people by the people—and it has seemed a logical conclusion to all nations at all times, that the rulers of the people should have the best education attainable. Then it follows that the entire people of a democracy should be educated, for they are the rulers."

In the famous report of Dr. Ryerson, published in 1846, one section has this provision, which I am sorry to say has been little observed within the last thirty years: "To employ every constitutional means to excite a spirit of intellectual activity and to satisfy it as far as possible by aiding in the establishment and selection of libraries and other means of diffusing useful

knowledge." In the reports of the late chief Superintendent, we find constant reference to the advantages of the rural school library, and there is not the slightest doubt that they served an excellent purpose. On one occasion Lord Elgin declared that the township and county libraries "were the glory and crown of the Province." Since the abolition of the Depository in 1871, and the withdrawal of the 100 per cent. grant by the Government on all local expenditure for the establishment of rural school libraries, little has been done in Ontario to establish, generally, libraries in our Public Schools. If it were possible to establish a well-selected library of even a few good books in every rural section especially, we would not hear so often of the illiteracy of our rural population, Illiteracy, I am credibly informed, is sadly on the increase in the rural districts. Even in the centres of population we can hardly boast that the average citizen has reached too high a degree of general intelligence. While most of our Collegiate Institutes and High Schools are fairly supplied with libraries, and while the pupils attending such schools are often drawn from the class of citizens that have private libraries of their own, or are within easy access to the public library, it is a totally different matter with the pupils of our rural schools. In the report of 1900, it is stated that out of a total of 5,120 rural school sections, there were 5,000 which the public library did not reach, and which, so far as facts could be gathered, had few, if any, libraries of any kind. When we realize the fact that few of the scholars of the rural schools reach even the standard of the Fourth Reader, and that all the rest are either below that standard or do not attend any school at all, and therefore rarely attain that point of intellectual growth when a taste of literature has been developed, that many of them, when they grow up to be men and women, spend their lives without the refinement that reading gives, that their reading is confined mostly to the weekly newspaper, if even it extends so far, can we wonder that many of our ambitious boys and girls leave the farm to find more refining environment, and that those that are left on the land are sadly wanting in this equipment for the struggle of life. It should be one of the most important duties of the teacher, to direct his scholars in selecting books suitable to their taste and capacity. A child is usually an omnivorous animal, browsing on all kinds of food alike—good and bad—and he requires to be led into the green pastures and still waters of literature, or else his taste will be vitiated. The law of Dr. Ryerson was an excellent one, viz., that



100 per cent. be added by the Government to the actual amount expended on books by the local trustees of each school section. If this law were revived, and the amount of money expended by the School Boards on books a factor, as is now the case with High Schools and Collegiate Institutes, in the distribution of the grant, much would be gained in paving the way towards the establishment of libraries in rural schools. There is room in Ontario for some philanthropic man like Mr. Andrew Carnegie to do for the rural population of this Province, who are in urgent need of reading matter, what he is so lavishly doing in the great centres of population in the United States, the Mother Land and in Canada. May we soon see the day when some such benefactor will arise and give the farming population—the backbone of our land—a public library in every school section, so that the blessings that literature brings may be enjoyed at every fireside.

The question of examinations is also a vital one, and in some quarters the tendency to do away with them, if possible, altogether. Like many other things in life, they are good servants, but bad masters. Used judiciously, as they always will be by the careful teacher, they are an incentive to study, and after a long experience with all classes of pupils, I have yet failed to find the boy or girl who does not require some incentive in the pursuit of knowledge. The hope of reward or the fear of failure is a powerful, and I have yet to learn an ignoble, stimulant even in school work. It is true that there are many who disavow this sordid inducement to educational activity in the school room. When we have reached the blessed era of the millennium, perhaps some will be found who, in the earlier stages of school life, love knowledge for its own sake. The average student can see nothing, however, but drudgery in school work, unless you can show him that all this toil and study is to better his lot in life by giving him pecuniary profit, social position or advantage of some sort over his fellows. It is only when he has climbed the steep hill of knowledge and reached the higher plains, that he can see the beauty of the landscape and reap the reward of his toil; but in climbing he must have some objective point which he desires to attain in order that his pleasure may be gratified. We must have promotion examinations. Without them, chaos would reign supreme; work would be done in a slipshod manner; pupils totally unfit would be forced into classes in which they would only be drags to the progress of good scholars, and the whole school, so far as classification was concerned, would be out

of joint. Thirty years ago—that golden age in educational affairs with no promotion examinations in our schools, and no examinations of any kind except the University Matriculation—our schools were in a deplorable state of organization. There can be no doubt that our schools have in many respects been benefited by the examination system. We may have carried the system too far. We certainly did go too far when we held examinations in Form I, and we can easily afford to have them abolished in Form II. The school will be best conducted when the master has most, and the department least, to do with the examination of pupils. But every teacher must have a certificate of qualification as a safeguard to the public against unqualified teachers, and every matriculant into a University should also have a certificate to show that he is able to proceed with the course. It was an unfortunate day for our Provincial University when it opened its doors to a number of non-matriculants, and thus compelled its instructors to do work that can be far better done in the High Schools of the Province. Let the University act in accordance with the resolution passed last year in the Classical Section, and half of the raw material that at present fills the first year classes of our Colleges will be sent back to complete their High School course. The following resolution was passed unanimously in the Classical Section: "That in the opinion of the Classical Association it is detrimental to the interests of the High Schools and to the University that any other than regularly-matriculated students be admitted into the University, except in cases that may be specially considered."

There is, however, one feature of our examination system which is positively injurious to the interests of our High Schools, viz., the method of publishing the results of the Department examinations under the names of schools or centres in the Toronto papers. Objection has been taken to this, and wisely, by resolutions in the High Schools and College Department in both 1899 and 1901. Last year a slight change was made in publishing the results. Why could not the results of the mid-summer examinations be sent direct to the master without any publication at all? This method would prevent a great deal of that unseemly, unprofessional vaunting that is too commonly indulged in by the light-headed of the profession. The retention of the present mode of publishing the results is exceedingly objectionable to every teacher who wishes to do honest work, and fosters a false estimate among the ignorant of the true standing of a school. While the Department on the one

hand loudly proclaims that we should not teach for examinations, it nullifies its own advice so long as it preserves this pernicious custom and exposes the teacher to the capricious whims of public opinion, and school boards who usually need little encouragement in exercising emalic tendencies. With Hamlet, I would say :

“It offends me to the soul ; pray you, avoid it.”

And now one word, in closing, with regard to the programme of studies; and in saying something on this head, I would like to give the Minister some advice. We all remember in Dickens' *Pickwick Papers*, the scene where Sam Weller came to comfort his father after the death of Mrs. Weller, how solicitous the widows of the neighborhood were for the health and comfort of the elder Weller, and how anxious the father was to impress on his son the designing character of “vidders.” Well, I would say in all sincerity to the Minister, “Beware of faddists.” This interesting species of the *genus homo* may be perfectly harmless in a museum of natural history, but he is positively dangerous when he gives advice in educational matters. He is usually a man with a mission, and with an absorbing desire to benefit humanity. Though not armed with “triple brass around his breast” like the Horation hero, he usually has a superabundance of this same metal on his cheek. Persistent in advocating his visionary theories, he usually succeeds in the long run in getting his demands. So many fads are attempted to be dragged into our system of secondary education, that it is difficult for us “to see the wood for the trees.” The programme of studies, altogether too wide in both Public and High School, should not be enlarged to meet the capricious whims of visionaries. One of the axioms of this class of men seems to be that everything that is worth knowing should have a place in our curriculum of studies, and that all studies are equally educative in character. These theorists are more catholic in their tastes than Domsie of Drumtochilly, who would set a boy, if he had no taste for Latin, at the study of beetles. There is no doubt our curriculum should be elastic, but in making it elastic, we should never forget the fact that the great ends and aims of education are often missed by allowing a pupil to specialize too much and too soon. While we admit that every child in a class is different from every other child, just as every leaf on a tree is different from every other leaf of the same tree, we must still recognize the fact that the points of resemblance are more numerous than the points of difference.

Our programme of studies reflects the commercial spirit of the age. Classical studies are being dispossessed by Science. We all rejoice at the marvellous growth of scientific discoveries of the past century, and we trust that in the present century even still greater achievements will be in store for our scientific investigators. The rapid development of our commerce and the opening up of our mines have given *impetus* to our technical institutions and our School of Practical Science. Scientific knowledge brings with it quick returns in money, while the classical student has often to "practise his woodland lay" on slender fare. No longer in our colleges has the study of classics the foremost or even the second place; and even from our High Schools and Collegiate Institutes the study of Greek is fast fading away. This, however, I venture to predict, though we build our University Hall "more enduring than brass and loftier than the royal structures of the pyramids," though our professors may be as "thick as the autumnal leaves that strow the brooks in Vallombrosa," and though our students may be "more numerous than the sands in the Libyan desert," unless we have in our programme of studies an abiding place for the great masters of human thought, the perennial fountain that refreshes and reinvigorates all that is best in modern life and literature, an abiding place for "the mighty minds of old," we shall find, perhaps when it is too late, that all our princely Universities with all their magnificent equipment are only cumberers of the ground.

## STATUS OF THE EDUCATIONAL COUNCIL.

(An Abstract.)

W. F. MOORE, DUNDAS.

Mr. Moore traced the history of the Educational Council from its establishment as the Council of Public Instruction in 1846 at the suggestion of Dr. Ryerson. The following gentlemen composed the Council at that time: Dr. Ryerson, Chief Superintendent of Schools; Right Rev. Michael Power, Roman Catholic Bishop of Toronto; Rev. H. J. Grasett, Rector of Toronto; Hon. Samuel Beatty, Judge County York; J. C. Morrison, Q.C., M.P.P.; Hugh Scobie, Esq., Editor *British Colonist*; J. S. Howard, Treasurer County York. In 1850 Rev. John Jennings, Presbyterian minister, and Rev. Adam Lillie, Congregational minister were added. The object of having so many ministers on the committee was to safeguard the interests of the churches which they variously represented as well as to help in the organization of a school system on a non-sectarian basis. Their duties were defined. These were three in number:

1. To take charge of the Normal School.
2. To take charge of the Common Schools.
3. To have control of the text-books.

Twenty-five years after this the duties of the committee were very largely extended and five duties assigned to them. The qualification of teachers, appointing time and place of examinations, superannuation of teachers, selection and appointment of Normal masters, and complete control of text-books.

The fact that a man was a school teacher or inspector was a disqualification then for an appointment on this Council.

In 1876 the office of Chief Superintendent was abolished and a Minister of Education was appointed.

In 1897 the number of members of this Council was increased from nine to twelve, and the absence of the ministerial influence is noticeable. Here are the names of the members of the Council for 1901: Professor Burwash, Professor Baker, Professor McCallum, Professor Clark, Professor Farmer, Professor Loudon, Principal Hutton, Principal Fessenden, Rev. J. R. Teefty, Inspector Tytler, Dr. Knight, G. H. Armstrong, M.A. Nine University men, one Collegiate, one Public School man. There certainly were too many

University men in proportion to the Collegiate and Public School representation.

Every University has its senate, and any outside interference with the peculiar interests of the University would be immediately and promptly resented. University men do not best understand the requirements of High and Public Schools, consequently the latter should have more representation.

The following representation was suggested: Each University and University College, one; three from Collegiates; five from the Public School, one inspector, one trustee, one from the Training Schools, one outsider, who should be chairman. The universities elect their own. The Collegiate, Public School inspectors and trustees elect theirs annually at the meeting of the Ontario Educational Association, and the Minister to appoint the outsider. These men should be paid for the service rendered.

There should be a Committee of the Whole to take care of those concerns that pertain to education generally. Then divide the Council into committees to take charge of those duties pertaining to the particular body which they represent. Duties:

1. Complete control of text-books, not necessarily in their preparation, but to pass upon them as to their suitability for the class or grade or work for which they were intended.

2. Full charge of all departmental examinations, appointing the examiners, the associate examiners, preparing the papers and hearing appeals.

3. Should have charge of the curriculums of the various schools and colleges.

4. That they should be a Consultative and Advisory Committee with executive powers.

In an interview the speaker had with the Minister some time ago the Minister complained that it was difficult to get the Council to do anything. This was not surprising when the only duty they have to perform now is in connection with the annual examinations, and for this they are not paid. Let the councillors be paid and exact from them prompt attendance and attention.

If these schemes were adopted the persistent objection raised annually and always by the teachers against our present text-books would drop, or at any rate the Parliament would not be held responsible as it now is, for their unsuitability.

## COLLEGE AND HIGH SCHOOL DEPARTMENT.

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*CHAIRMAN'S ADDRESS.*

J. SQUAIR, B.A., TORONTO.

In the midst of the clamor raised by the advance-guard of educational reformers regarding the value of industrial training in one form or another, many seem to have forgotten that the organization for teaching old-fashioned scholarly subjects, particularly the foreign languages, ancient and modern, has never been satisfactory in this country. In Europe these subjects for a long time were almost the only ones taught in schools, and even now, in spite of the introduction of many new subjects, they remain in a very eminent position. But in this country they have never had a fair chance. Our school machinery has never been adjusted so as to make it reasonably easy for pupils to become scholars, particularly in languages, and the bulk of the changes of late introduced, or at present under consideration, and likely to be introduced, are such as will render the acquisition of this sort of learning still more difficult. Can anything be done about it? Not much, perhaps. That vague but real thing called the spirit of the times is unfavorable. We have only to open the newspapers to see how it comports itself. Within a few weeks we have heard a member of Parliament counsel one of our Universities to spend less time on Latin; we have heard another say, at a meeting of University Alumni, that the Legislature would gladly give hundreds of thousands to industrial education, but would give little to learning; and we have heard the Minister of Education say that classical learning will have to be prosecuted in fewer schools in the future than in the past. Too much time devoted to Latin! Too much money given to learning! Who would have thought it? Certainly less of these is lavished on scholarship with us than in most civilized countries.

But whether much can be done in opposition to the spirit of the times or not, an attempt ought to be made to secure and maintain

some arrangement of educational affairs which will permit those who desire a linguistic training in our schools to get it. Commercial, industrial and agricultural education are, no doubt, important, but they must not be allowed to so crowd and embarrass the curriculum that no place can be found for other things. The time devoted to languages has never been enough, and if we are to have scholarship it must be made possible for some, at all events, to have more time to devote to them. Better teaching and better examining will do much, but without more time even these will be ineffective in accomplishing the desired object. And how is this extra time to be secured? By beginning the study of the foreign languages at an earlier age than is now customary in our school system.

This is the very core of this important subject, and two or three plans which would permit its realization may be considered:

(1) A definite class of High Schools might be established for the study of the languages, to which pupils might be admitted at an early age.

(2) The study of the languages might be permitted in the Public Schools without passing the Entrance Examination.

(3) Preparatory forms might be instituted in High Schools, to which young pupils might be admitted.

(4) The Entrance Examination to High Schools might be made easier.

The first of these plans would be the most effective in providing the proper organization and equipment for carrying on linguistic training of a high order. But it would lessen the number of those taking the languages, and it would increase the cost to those who would have to remove from their homes to the places where the schools would be instituted. It is a plan which seems to be opposed to the High School policy followed in the Province for many years, and if introduced might work many changes which we at this moment could not foresee. And yet the remark of the Minister of Education, referred to a few moments ago, would seem to indicate that such a plan is one of the possibilities of the future.

The second plan is one which could be very easily introduced; in fact, it is almost in operation at present. In several of the Public Schools, where there are continuation classes, the languages are now taught. But there is one drawback. If I read the Regulations aright, no pupils may be taught languages who have not passed the Entrance Examination. Such a prohibition destroys in



a large measure the usefulness of these classes, and should be removed. Surely, if there are communities where Public School Boards can secure the services of persons competent to teach languages, the teachers and the Boards might be allowed to settle what pupils shall take languages.

The third plan is one which has been tried a little in this country, but has been abolished, I believe, by law. It is hard to understand why. One can hardly see what harm would be done, say in large places, by allowing preparatory forms to be established in High Schools, particularly if the extra expense of them were borne by the pupils attending them. On the contrary, it seems probable that important advantages would flow from them.

But the fourth plan is the most comprehensive of all, and if introduced and carried far enough might be sufficient of itself, although the other three are not inconsistent with it or with one another. Indeed, the whole four could be introduced simultaneously. But not only is this plan the most comprehensive, it is also the most necessary. The Entrance Examination is the most important factor in the adjustment of the various parts of our school system, and as things stand at present it has done a great deal to hinder the development of language studies, and not only of language studies but of all higher scholarship as well. For those who are going to the High School and University the time spent in the Public School is a good deal too long. There are few countries where the entrance to higher studies is postponed to so late a period as here. If scholarship is to flourish then the Entrance Examination must either be abolished or made easier. To abolish it would be, perhaps, too radical a step. To make it easier would be simple and sensible. What minimum educational equipment is it desirable that persons entering a High School should possess? To be able to read intelligently and intelligibly ordinary English books, to be able to express in respectable written or spoken form what one wishes to say to others, to be able to reckon in whole numbers or fractions. It may not be desirable that the Public School course should be limited to these subjects, but is there any reason why the Public School curriculum and the Entrance Examination to High Schools should coincide as to subjects? It is true they do not quite coincide at present, although they come very near it, and it has been almost a settled policy with us that they should coincide, for the reason that if you do not examine on all the subjects of the Public School course the Public

Schools will not do their duty. If that is so, then God help the country! If our teachers will not do their work without having the fear of examinations forever before their eyes, it is pretty certain that their teaching is bad and will remain bad. The stream will not rise higher than its source. It is probable that the influence of the 17,149 who went up for Entrance Examination last year on the 78,912 Fourth Form pupils of the Public Schools is very much over-estimated. No great amount of good stimulus would be withdrawn from the Public Schools if the High School Entrance Examination were really made what its name indicates—a test of fitness for entrance to High Schools. Now, if the examination were a real Entrance Examination, what changes would be made in it? The arithmetic paper would be made simpler and more practical. For years back it has been a set of puzzles constructed to embarrass candidates. If one compares our entrance papers in arithmetic with the papers set by the University of Cambridge at its previous examination in the same subject, it will be very evident that our questions are considerably more difficult, and still are intended for persons far less advanced. The grammar paper also should be simplified and made more practical, unless, indeed, it were abolished altogether. There should be a test in composition, but there should be no paper in literature unless it were some simple questions regarding the meaning of a sight passage. Certainly there should be no questions on prescribed passages which could be answered from annotated textbooks. The paper on physiology and temperance should disappear, and it would be a good thing if the subject also disappeared from the Public School curriculum. If the subject is to have a place in our educational system it should be in the post-graduate courses of the University. To have it where it is now is almost a pedagogical crime. Let the children be taught good habits, but let their heads not be filled with prejudices and crude ideas. The subjects of history and geography are very perplexing to deal with. They are extremely important and interesting. They perhaps surpass all the other subjects. But they are so vast, they are made up of so many different elements, they are so profound and so complicated that a course in them for primary schools can scarcely be made which will not largely degenerate into “cram,” particularly if the teachers be persons of small culture and experience, and this tendency towards “cram” is generally accentuated if you add official examinations. On the whole it is doubtful

whether it would not be a gain all round if they were omitted from the subjects for the Entrance Examination.

All this may sound revolutionary to many. We have become so accustomed to the idea that to have a stiff examination in a subject is all that is necessary to improve the teaching of the subject! But surely we have tried it long enough to know that the examiner wields no magician's wand in a system of education. Our schools are not improving very fast, and no increase in the severity of examinations will make them improve. We must have recourse to other remedies. The effective remedies are two: an increase in the distinction, stability and emoluments of the teaching profession, and an increase in the intellectual and artistic culture of the teachers. The first of these involves changes in statutes and regulations regarding legislative grants, grouping of school sections, retiring allowances and the like, and the second involves a radical change in our ideas regarding the training of teachers. The assumption made by so many in our country, that all that is needed by those who have passed the non-professional examinations to make them good teachers is instruction in pedagogics, is absolutely erroneous. They do doubtless need pedagogics, but what they need vastly more is a deeper and wider knowledge of the subjects they are to teach, and, in addition, the knowledge of cognate subjects to give them that grip of themselves and their work which makes efficient teachers. For instance, if one is to teach geography, he should know something about geology; if he is to teach history, he should know something about ethnology; if he is to teach English, he should know something of Latin, and so on. It is for this widening and enriching of the knowledge of prospective teachers that our Normal Schools should mainly exist, for it is what is most needed with us. It is too common a defect in this country to imitate what is being done elsewhere without considering what it is *we* need. But to accomplish this, great changes would be necessary in our Normal Schools. The courses would have to be lengthened, the staffs increased and the instruction modified. Whilst I am speaking of Normal Schools I may be pardoned, perhaps, if I go still another step and say a word about the chief of our training schools, the Normal College. I consider it to be in an unfortunate condition. It should have been arranged so that its students might have, as the chief part of their work, post-graduate courses in the University. I have no hesitation in saying that the majority of the students whom I have known

need much more a perfecting of the knowledge of their subjects than of anything else. These questions of the improvement of the status and quality of our teachers are amongst the most important with which the educational authorities of the country are confronted, and it is amazing what a small amount of attention they receive. They are infinitely more momentous than the questions now disturbing the public mind, such as manual training, agriculture, domestic economy, etc. We do not need the addition of half a dozen such subjects to our school programme, but we need better teaching of those now upon it. Better teachers, fewer subjects, and less rigid regulations and examinations would redound to the advantage of all. Let us have good teachers and trust them to teach what would be useful to the pupils without insisting too much upon exact compliance with official programmes. The truth is, we have overdone the matter of regularity. We are too systematic. We have paid so much attention to the fitting of the gearing of the machine that we have forgotten to some extent the necessity for driving power.

Whether these suggested changes would all tend in the hoped-for direction or not, it is certain that the great desideratum, from the standpoint of those who are solicitous about the fate of scholarship, is to make it possible for those who are likely to go to the University to begin their languages early, either before or after they enter the High School. There are four foreign languages which, under present conditions, every matriculant should know something about, Greek, Latin, French and German. Is it necessary to discuss why these four should be required of all? It ought not to be, and time forbids on this occasion. Moreover, most men of University training would agree as to the desirability of knowing something about them all, but they tell you that there is not time for them now on account of the vast number of other things which must be learned.

But when one looks a little, as we have just been doing, into the matter, one comes to the conclusion that this difficulty is due, not to the presence of necessary subjects on the school programmes, but to the presence of subjects that either ought not to be there or should be postponed to a later period.

A great part of the time of pupils in the Public School is wasted in trying to learn things at the wrong time. There are hard questions in arithmetic which would be easy if deferred until the pupil had learned some algebra; abstruse points in the logic of English grammar, on which a knowledge of the grammar of other languages

would shed light; knotty problems in constitutional history which would become simple after archæology and ethnology were studied. It is this waste of time that is so annoying. If the pupil were really mastering these things it would not be so bad. What he does in many cases is merely to try to learn by heart what can only be learned by reflection, and he is prevented from learning by heart, at the proper age, that which can only be learned by heart, viz., the rudiments of the languages. There is plenty of time during the Public and High School life of the average pupil to learn a little of each of these four languages, and all the other things demanded by the University at present if the time were well used, particularly if the language-men would bestir themselves in the direction of simplifying and improving their examinations, courses of instruction and text-books. And never was there greater need for sound linguistic and literary training than now. In the midst of pronounced materialism, something might be done for the world's good by increased attention to these studies.

But I must hasten on in order to call attention to another matter before my address becomes too long. The low standard of scholarship in our country is produced not only by imperfect machinery in our schools, but more particularly by a lack of desire for it in the body of the people. Indeed, if a sufficient number of the people desired high scholarship we should soon get it. Our machinery can with difficulty produce scholars, and if, perchance, one should be produced, he finds no sympathetic environment in which to come to full maturity. He has no audience to speak to or write for. There are countries where the scholar, the investigator, the historian, the artist, may win fame and wealth, but Canada is hardly one of them. Can we do anything to improve matters? Can we increase the number of University graduates in our Legislatures? Hardly. Can we secure that a larger number of scholarly men shall be appointed to the civil service? This also will be difficult. But might we not be successful if we asked that High School Masters' certificates be granted in the future to none but University graduates? And that a similar rule be applied in the case of Public School Inspectors, and also of Normal School and County Model School masters? The various professions might do a great deal for the cause of higher learning, and for themselves also, if they would demand a University degree as their standard for admission. Does anyone believe the country would suffer for lack of clergymen, physicians, lawyers, engineers, dentists, pharmacists

etc., if such a rule were in force? No one would be more prompt than I to admit that there are graduates who possess little brains and less culture, but surely there can be no doubt that the average of both brains and culture in the professions would be raised if all but graduates were excluded from them. Some of these professions have already a goodly number of graduates, others have but few. Here and there we can see hopeful signs, as, for instance, in the recent action of the University of Toronto, by making it possible for the medical graduate to obtain his B.A. and M.B. degrees at the end of six years. But that is a mere beginning; the medical profession could well afford some day to go a great deal farther. And let us hope that some time all the other professions may follow! But what can we do as a Teachers' Association to help on such movements? I think we could attempt nothing more suitable, and I hope that to-day you will begin the consideration of some of them. A great responsibility rests upon us. Let us not prove false to it!

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*SUGGESTIONS TO TEACHERS OF SECONDARY SCHOOLS.*

JOHN SEATH, M.A., TORONTO.

When you did me the honor to ask me to address you, assigning me as subject "Suggestions to Teachers of Secondary Schools," I was somewhat puzzled to know what topics it would be best for me to take up. Accordingly, I communicated with a number of Principals who represent different interests, asking them for suggestions; and I now very gratefully acknowledge their ready and valuable assistance. I found, however, when I had completed the address which I had based on these suggestions, that it would take me several hours to read it. This, of course, would have been too much for even your powers of endurance, not to speak of my own, and I have spent the last few days in cutting it down to reasonable proportions. Even thus, however, it will take me an hour—more or less, as the lawyers say—and I must ask you to bear with me as generously as you can.

Let me say now, once and for all,—and I trust you will keep this in mind—that my subject necessarily involves criticism; and that, while the general situation, I believe, amply justifies all I shall say, there are none of my criticisms to which there are not exceptions—in some cases but few, and in most cases many. Much, too, that I shall say can have little novelty for your older members. You will not all agree with me, either, in everything; perhaps, indeed, in much. This, however, is only the common lot. Few do agree in educational matters; not even the politicians, if I am credibly informed. As is my wont, too, I am going to speak with frankness the truth as I know it, even though I run the risk of appearing inferentially to set myself up as an "earthly paragon."

Without further preamble, then, I now announce the heads of what you will find to be a practical discourse. These heads are:

1. Questions Relating to School Organization and Management
2. Questions Relating to Teaching;
3. Your Relations to your Local Public:
4. Your Relations to the General Public.

## I. QUESTIONS RELATING TO SCHOOL ORGANIZATION AND MANAGEMENT.

The problem of organization that confronts the High School Principal every September, and at intervals throughout the year, is, as you all know, by no means an easy one. But its difficulties are now unnecessarily great. In the last analysis these difficulties are due, I believe, to two main causes: the examination pressure and the multiplicity of the options with their educational waste. Some of you have suggested that I should deal with the best way to meet these difficulties; but it is really not worth while to go into the question fully. I cannot believe it possible that the Universities and the head of the Education Department will allow matters to remain long as they are. We want and we need a fair degree of fixity in our system, but the system should first be set right.

It will not, however, be amiss for me to touch upon a few points at the present juncture. If any one asked you what now troubles you most in your organization, you would at once say, I suppose, the Public School Leaving; not, however, the Public School Leaving of the Regulations so much as the Public School Leaving of reality. My advice to you is to ignore the examination altogether. Classify your pupils according to their general standing, and make such necessary special arrangements as the claims of the rest of the school will permit. Reduce also, ruthlessly, the number of your options: much of your trouble is the result of mere whim on the part of your pupils. If in a two-masters' school, do not on any account attempt the work of Form IV; and if in a three-masters' school, do not attempt both parts of the Senior Leaving Examination, if, indeed, you attempt it at all. Some three-masters' schools refuse to take up either part, and, verily, great is the masters' and their pupils' reward. Do not, either, teach before nine or after four o'clock. Each of us has just so much energy every day; and, if even the strongest of you works faithfully during the ordinary school hours, he will, with his evening work, have done all he can and all he should do. The chief obstacle to following this advice is, I well know, competition with other schools. But the Principals of each county or neighborhood should, from time to time, unite on some common course of action and should always stand loyally by one another. Any other course is simply suicidal. The Education Department could, I confess, help you very materially. When



next the Regulations are amended, I trust the Minister will make it obligatory for a pupil to present a letter of honorable dismissal from the last school he attended before being admitted to another. Some Principals insist on one even now, but unfortunately the practice is by no means general.

A number of masters have suggested that it would be well for me to discuss the vexed question of the amount of time to be given each subject. Under no scheme, however, can definite directions be given which will apply to every school, so much depends on the size of the classes and the proficiency and general ability of the pupils. Besides, I did discuss the general question in my last year's report to the Minister in connection with a proposal for remodelling our programme; and, as matters stand, I do discuss the special case of his school with the Principal at every official visit. One matter I must speak of here. Not the least of the difficulties of many Principals are the claims of some of their specialists. Such teachers have now and then too little regard for the other departments; they are unreasonable in their demands for time, and in the work they require from their pupils. Occasionally, it is true, a Principal is himself inconsiderate; but for one Principal who takes too much time, there are, I can assure you, half a dozen who take less than their share. Difficulties connected with this subject should be discussed at that very important function of the school economy—the Teachers' Meeting. But the proper apportionment of the time is one of the Principal's most important duties; and it cannot be too widely known that the responsibility is his, and that neither his Board nor the Education Department can do more than offer its advice.

An important consideration in the organization is the length of the lesson periods. At present these run from an occasional 20-minute space in the smaller schools to 45-minutes in one or two of the larger ones. Generally speaking, the periods are 30 or 35 minutes. There are some subjects for which half hour periods are long enough, especially in the lower forms; but, for most, this apportionment is too short. Nor can the difficulty be satisfactorily met in every case, by combining two such periods. Except for a Science class, an hour is usually too long, and there is no school in which it is possible to provide hour periods for all the classes which need more than half an hour. There should be both 40- or 45-minute and 30-minute periods according to the nature of the subject. Twenty years ago the periods were longer in all the schools, and I

can recall only one instance in which they were shortened on real educational grounds. With short periods the teacher is hurried; and, to get over his work, he sometimes feels himself forced to tell what, had he the time, he could elicit from his pupils. One of the most commendable features of the American schools is the deliberation with which they do their work. The feverish stress which one sees too often in the Ontario High School is there conspicuously absent. Our examination system and the multiplicity of our options are, of course, to blame. But even now it would be far better if some subjects had fewer and longer periods, with a provision for what is called "seat-work" in the Public Schools.

Connected with the question of the length of the school periods is the fundamental one of the number in each form. Much depends, of course, upon the size of the school and the amount of work it attempts. Under ordinary circumstances, the larger the school the better can the grading be made. Twenty years ago, before the attendance had risen to its present proportions, it was held that there should not be more than twenty-five on the roll for each teacher on the staff. Of late years we have taken thirty as the normal; that is, a school of one hundred and fifty should have, at least, five teachers. Supposing the grading to be good, there should not be an average of more than twenty-five in one form. For a class in which much individual work is indispensable—in a Language class, for example, in Form III—even this average is too high. In the best schools of the United States and of England, the average is considerably lower; but, at present, twenty-five is probably as much as we can secure, and it is often hard enough to secure this.

Another question suggested is: What subjects should the pupil take up when he enters the High School?

The first step is to find out *directly* from the parent what his wishes are in regard to your pupil's future. The parent's answer should be in writing in reply to a printed series of questions on the subject, sent to him by the Principal, for reference and to prevent misunderstanding in the future. The common practice of finding out by questioning the pupil is a bad one. If, as is often the case, the matter is left to the Principal, he should be guided by his knowledge of the situation, and especially by the length of time the pupil will probably remain at school. I am not here ignoring the difficulties of the present programme of studies and examinations. Until it is remodelled you must just do the best you can.

A word now as to the time when, having settled the pupils course, you should introduce him to the new High School studies.

From all points of view it is, I hold, a very serious pedagogical blunder to dissipate the pupil's energies over a large field at any time, and especially when he enters. Almost invariably Euclid is now, very properly, not begun until the second year, or until after Easter at any rate, when some time is occasionally taken from arithmetic and no text book is used. In mathematics, at first, most time should, of course, be given to arithmetic, with provision for algebra. Literature, grammar, history and geography should be begun; the geography being emphasized at first more than the history, and the Canadian history more than the English. The geography should be chiefly physical, and might often be taken by the Science master, who would emphasize botany in the season of flowers, and geography at others times.

As to the Languages: if Latin is to be taken it should be begun in Form I, soon after the pupil's admission; and, in my judgment, if it is to be what it should always be, a serious study, there should be a lesson every day. In many schools French is begun at the same time. If it is, it should, I think, be taken two or at most three times a week, the work being wholly oral, without a text book and without home work. As soon, however, as the pupil has got over the initial difficulties of Latin, French should be co-ordinated with it; German and Greek being then begun. In a few localities, of course, German and French are interchanged in relative importance. Some schools, under present conditions, defer the Modern Language until the pupil's second year; and, for the smaller schools, at any rate, there is much to be said in favor of this plan. Remember, I am here dealing with a condition, not with a theory. To become a good Modern Language scholar, the language should be taken up in early youth. Only thus can we secure good pronunciation, and the facility that comes from constant practice under suitable conditions. But now we have neither the teachers nor the time to do the work, and results that answer our purposes can be secured at less expenditure of time and energy.

I am a firm believer in the intensive study of a subject—of a few subjects at a time. Our subjects are now almost invariably *all* kept going; I am morally certain that, if the plan of intermitting the study of certain subjects for a time were generally adopted, far better results would be obtained even under present conditions. It is with this in view, I may say incidentally, that I support the

consolidation of Parts I and II of the Matriculation and the Junior Leaving Examinations. There is no good reason, considering the requirements of matriculation, why arithmetic and English grammar should be on the time-table of Form III for this examination. A review of a month or so before the examination would, I am certain, give ample preparation. For the teacher's non-professional examination, twice a week for each should be ample in Form III.

Very generally I find that the new High School subjects are begun as soon as the pupil enters the school, and his text books are bought then or even before. It would be wise, I think, to spend some time at first simply in a review of the elements of the Public School subjects. In a week or so most of the new pupils will have entered, and both parents and pupils, to use a common expression, will have "sized up" the situation better than is possible immediately after the reopening. It is then also that the parents' wishes should be ascertained and the pupil's course determined.

As to the text books: every Principal should make it clearly understood that no order for the purchase of a text book is to be given a class without his authority. *He* is by law responsible to the public. Occasionally assistants take this responsibility upon themselves, and now and then I have found books in use, of whose introduction the Principal has actually had no knowledge.

As you are aware, the cost of our text books is in various quarters a fruitful source of criticism. The annotated editions, the book-keeping blanks, and the multitude of note books have, however, really more to do with the complaints than the books on the authorized list. How to reduce the cost of the extras, I have systematically discussed with you on my inspectorial visits. But I take this opportunity of calling your attention to what some of you may not know or may not have realized—and I press it very strongly upon your attention: the lately authorized Public School arithmetic, grammar, and geography have been constructed to serve for the fifth as well as for the lower forms of the Public Schools; and it was deliberately intended that the corresponding High School books should fit into the Public School ones. It is, therefore, bad policy to require the ordinary High School entrant to buy the High School books until he has been in attendance six months or so at the very least. This caution applies also to the High School history. You know how history is taught in the average Public School: there is ample material in the Public School history for a High School course of many months.

Twenty years ago the theory was that the development of mental power is the sole business of the High School. The claims of the practical are now being forced upon you. What should be your attitude towards what has been called "the New Education"?

I regret to hear that in some of your Sections the latest product of educational evolution—Manual Training and Domestic Science and Art—was last year, and, I fear, is even this year, spoken of in a somewhat inconsiderate way. Permit me to say that indifference or hostility, no less than the advocacy of the thoughtless enthusiast, is much to be deprecated. Every new problem in education deserves earnest and respectful consideration.

Very generally throughout Ontario, the Commercial Department is coming to the front. Stenography is being taught, type-writing machines are being purchased, and book-keeping in its various departments is one of the most important subjects of the course. When the management is judicious, the popularity of the new departure is seen in increased attendance, and the comparative ease with which a larger municipal grant is often obtainable. Domestic Science and Manual Training have already been introduced in a number of localities, and in a few years we shall have many centres for this kind of work. Real technical education, however, except in a few localities, is still a thing of the future, and there is some reason to regret the mental confusion that exists in many quarters as to its relation to Manual Training. These new subjects have come to stay, and it would be well for all of you—Classical, Mathematical, Science, and Moderns men—to realize the fact, and to use the movement, as it may be used, for the proper ends of education.

But the present movement in favor of the practical has tended to produce at least one very regrettable result. Apparently the day is not far distant when Greek will be forced out of the schools. Few now take it, except those preparing for the Church. To a body like this I need not point out that such a result would be a public calamity. It is not, to my mind, the question of Classics *versus* any other department. It is the question of maintaining the highest form of literary culture in the Province. Can nothing be done to better the position of Greek? It can never again be what it was twenty years ago, either here or elsewhere; but the language may be given, what it has not now, a fair chance for its life. There are other causes, however, for its decadence besides the tendency of the age. The options and the examination pressure

are also to blame. Classical principals as well as the others are compelled to relegate Greek to a subordinate place in the timetable or to omit it altogether; and I regret to have to state that some Boards are actually putting a fee upon the Classical course which will virtually prohibit the study of Greek.

I bring this matter before you now to impress upon all of you the importance of fostering the subject in your schools in every legitimate way. I venture also to suggest, in passing, the general scheme of University Pass Matriculation, which has always seemed to me to be most likely to meet our difficulties, although, of course, in view of conflicting interests, it is open to objections. The obligatory subjects should be:

English and History, Mathematics, Physics, Latin, and French, with an option between Greek and German.

With this we should have a Moderns side and a Classical side—a scheme defensible on the ground of the natural requirements of subsequent courses and on the still broader grounds of educational utility.

A word as to examinations. No one needs to be told that the teacher's written examination, be it at the desk or the blackboard, is absolutely indispensable if you are to secure accuracy and keep the tally of your pupil's progress. If, indeed, by a special act of creation, we could secure for our High School staffs angels of light, with cast-iron constitutions, even more of this kind of work should be done.

I have been asked to make suggestions on this point. The practice in the schools varies considerably, and I do not think that uniformity is desirable. But my own view is that the teacher should himself hold a short examination as often as he deems it necessary; and that examinations in the most important subjects at any rate, should be held for general purposes at suitable intervals.

As to the outside examinations: it is, I presume, well known that I have no sympathy with those who advocate the abolition of all examinations. I think as highly as any one can of the competency and the character of our High School teachers. As a class they are not surpassed in either respect by any body in the community. But the entrance interests of the professions must be considered, and we must have a fair degree of uniformity. No sensible man, either, objects to the moderate application of the examination stimulus. What sensible men do object to is too much of it. Few of us object to some seasoning in our food, but we do object to any-

one's emptying into it the whole contents of the mustard-pot and the pepper-box.

But persuade, I beg of you, the Minister of Education not to publish the results of the examinations in the newspapers, no matter what the editors or the general public may say. It is legitimate enough for you to publish your list in your local paper in an inoffensive way, as one proof of your efficiency; but the publication of all the results in the city papers, even in the modified form of last year, is, to my mind, a most objectionable practice. It is the exploitation of the feature of our system that should be kept in the background. To this more than to anything else, I am absolutely certain, are due many of our most disastrous evils.

In closing this part of my subject, let me commend to you now the value of school decoration. Out of 135 High Schools, certainly not more than half a dozen have given attention to a matter which is so important in the development of taste. Chromos, usually of a most hideous type, are too often in evidence. Replace them, I beseech you, by artistic engravings, photographs or photogravures. Adorn your class-rooms and halls with busts of public men and historical and other characters and scenes; and, when next you recalcimine, have suitable schemes of wall decoration. In a word, make your school building a house beautiful. Do what you can to educate your Boards—it can be done—and ask the Education Department to make it worth their while to follow your advice.

## II. QUESTIONS RELATING TO TEACHING.

The most serious defect of the teaching in our High Schools is, I regret to say, the poverty of the results. A large percentage of the results are still raw and the workmanship is unfinished. For this, however, our low examination standard, not the teacher, must now be held chiefly responsible. The evils produced by this very grave defect are borne in upon me every day I visit the classes, and no sane man can suppose that the shoals of young candidates that pass Parts I and II of the Matriculation and Junior Leaving examinations—the Leaving examinations, be it remembered, for most pupils—represent satisfactory scholarship or the best possibilities of our school system. Matters are much worse now than they were some years ago. The abolition of the Primary and the domination of University ideals have lowered the standard of the Third Form examinations, and the unification of the Public School Leaving with

Part I of the Junior Leaving has injured both the Public and the High schools. Not only, too, do candidates now pass whom, under the present system, the teacher recommends, but hundreds pass whom he would have rejected. I feel that I am not overstating the case when I assert that the mental training of most of our pupils and the character of their scholarship are not what our circumstances demand and this Province has the right to expect from the equipment of our High Schools and the qualifications of their staffs.

Nor, unfortunately, do these results seem to be confined to Form III. The best products of your teaching, as every one knows, present themselves at the University Scholarship examinations; and yet, speaking of the effect of our examinations, in an article which I received the other day, Prof. Young of Trinity University, an examiner in Moderns, expresses himself thus: "Not only is the aim of the teacher lowered, perhaps insensibly, and independence stifled in the pupil, but a great deal of hasty (therefore bad) teaching and inefficiency is the result. On the latter point I feel strongly, for I have just finished reading three sets of Scholarship papers for the Universities of Ontario, the examinations being conducted by the Education Department. Hardly one of the candidates (about 120 in number) was able to give correctly common forms of verbs in general use, occurring in the prescribed texts."

Is this, I ask, the sort of scholarship we have the right to expect from our educational system?

The effects of the present situation on our Public Schools and our Universities, and through them on the Province at large, I need not detail. In a word, it has crowded the ranks of the Public School teachers with badly equipped members, and our Universities with badly equipped matriculants. We are here concerned chiefly with the pedagogical side of the question. The effect of our low standard is, as Prof. Young says, to produce slipshod teaching and a painful want of thoroughness, because slipshod teaching and a want of thoroughness will do for July. There is little discrimination, either, in the system as a whole. My testimony is that the poor teacher is now as effective as the good one—nay, sometimes even more so—and that the examination is worth little as a guarantee of respectable attainments on the part of the pupil. A good examination system would not only put good teaching at a premium but would secure us against the superficiality of the American system.



Two other general defects are also in a manner chargeable to the examination system; but for them the teacher has more responsibility than for the one I have just discussed. The first is what has been called "over-teaching." That this exists is, I know, held by many of you, as well as by those who have to do with the results of your work. Amongst many other adducible proofs let me quote, in corroboration of my views, the opinion of the Principal of the London Normal School, who, until recently, was one of ourselves, and whose present position has given him additional opportunities of estimating the general situation. Speaking of the qualifications of the teachers-in-training, he says:

"Another regrettable feature is their proneness to depend on the teacher for information and for assistance even in trifling difficulties. The will to investigate, or perhaps better the investigating spirit, is wanting on the part of many students. This appears to me to be traceable to 'over-teaching,' especially in our graded Public Schools and in High Schools and Collegiate Institutes. The teacher is engaged all day with his class in reviewing old topics or in developing new ones, and little opportunity is given pupils of acquiring habits of reflection and investigation. They thus come to look upon the teacher as the natural source from which they are to derive all knowledge."

Our examination system is, of course, largely to blame for this extremely serious state of affairs. The pupil and his friends imagine that the more he is taught the better are his chances of passing, and, in spite of his better judgment, the teacher is often driven into adopting the popular theory. I have already referred to this defect incidentally when discussing the effect of short periods for class work and the necessity for study periods during school hours. Here I need only add that, while I recognize the embarrassments caused by our competitive examination system, the present situation is one that may fairly be improved. Your aim should invariably be the development of mental power, not the anticipation of all the difficulties of the examination paper. Even under existing circumstances this course will pay.

The second evil is a very widely-spread one. In most schools—I cannot, indeed, recall any wholly free from the fault—it is often impossible for the inspector, and evidently often for the teacher himself, to hear the pupils' answers. Both boys and girls speak in class in a low indistinct tone and in abrupt and badly-formed sentences. When I last visited the schools of the

United States I there found a totally different state of affairs. There the pupil would say what he had to say distinctly and naturally, and on suitable topics he would speak for several minutes at a time. Probably the genius of the people and the very general attention given to declamation have something to do with this. But not all; for it was abundantly evident to me that the teachers there take great pains to secure the result I am now commending. With us the preponderating influence of the written test is, I believe, chiefly to blame. We emphasize black-board work and written examinations, and give oral answering insufficient attention. One means, I believe, of correcting this grievous fault would be to have the pupil always stand up, when his answers would involve more than a word or two. Effective work in reading and oral composition and in the literary society, will also help, especially if under a regenerated programme we are enabled to give some attention to declamation. But the teacher must, in addition, cultivate sedulously a good style of oral answering, giving when he can questions that necessitate answers of considerable length.

Here also let me warn you against the seductive charm of simultaneous and indiscriminate answering. The evil is far too common. It is the bane of the young teacher in particular; and it shows itself now and then in his older brother, when advancing years make him more introspective.

So much for matters that affect more or less all the departments of school work. The question of special methods it would, of course, be impossible for me to deal with in an address like this. And, as you know, I do discuss them at my official visits when it seems desirable, or I am requested to do so. Besides, I am not a believer in a methodology which maps out each section of a subject with a foot-rule and prescribes so many steps for this and so many steps for that. Thank Fortune, we have little of what has been aptly called "method-madness" in our High Schools! The worst teacher I ever saw was a man who had read every professional work he could lay his hands on, and who had a cast-iron method for everything he did. Versatility is a most desirable quality. The progressive teacher is continually on the look-out for new ways of presenting his subject. Novelty has a charm for him no less than for his pupils.

Notwithstanding the disrepute into which psychology has fallen in many quarters, as the natural result of the blind leading the

blind, there *is* a modern psychology which is of great value to the thoughtful teacher, and there *is* a general methodology which can be based thereon; but, for my part, I think there is more use in an ounce of good common sense than in a whole ton of the professional training that evidently passes muster in some professional schools. Don't misunderstand me; I am not referring to the Ontario Normal College. From all I can learn, much good work is being done there, considering the limitations of the situation; and I am happy to bear testimony to the improvement manifested of late years by those who enter the profession.

Under this head of my address I have gathered a few notes on the teaching of certain subjects, which, at the present juncture, may at least prove suggestive.

Business men have been complaining for years—justly, I believe—that the work in arithmetic in both our Public and our High Schools is inaccurate, and that pupils cannot deal with simple problems of a practical character. This is, of course, due to the excessive emphasis at the examination on the culture side of the teaching and to the practice of giving almost full marks for the correct principle, without maintaining a satisfactory test in accuracy or giving sufficient prominence to questions that come up in everyday life. The current, I am glad to say, seems to be setting in the right direction; but I bring the subject now before you, because there are still stretches of stagnant water that the current has not yet reached.

In English grammar, nowadays, I seldom see anything but analysis and parsing. More attention should be given, I believe, to derivation. Cowper tells us of scholars

“Who chase  
A panting syllable through time and space,  
Start it at home and hunt it in the dark,  
To Greece, to Rome, and into Noah's ark.”

Twenty years ago we also went root-hunting; but the pendulum of opinion has of late swung to the opposite extreme, and philology in the English class is now one of the lost sciences. In moderation the old-fashioned Latin and Greek roots are still useful food if properly masticated. I believe, too, notwithstanding the attitude of some of our University friends, that the systematic study of the underlying principles in the development of our own language is the first, most natural, and the easiest step to the thorough under-

standing of language in general as the instrument of the mind's operations.

For the Public School teacher arithmetic and English grammar are important subjects, and yet year after year we have the inspectors of Public Schools and the Principals of the Normal Schools complaining of the work done in the High Schools. Not without reason did my predecessor, the Principal of the Ontario Normal College, emphasize the value of the logical training to be derived from the proper teaching of these subjects. The so-called Chinese puzzle is not wholly an invention of the enemy of mankind.

As the text of my next remarks, let me quote from the lately published report of the Principal of the Ottawa Normal School:

"There is no concealing the fact that we Normal School masters find our students, with few exceptions, lamentably deficient in a cultured use of the English language. When we come to read the examination papers handed to us, we often find the good effect of a fine comprehension of the matter of the examination paper marred by deficiency in cultured expression. This defect has always been a source of great regret to me—to find the papers of a powerful thinker spoiled, destroyed by errors which should never have survived the Public School course, not to speak of the High School course. This is a weak point, a very weak point, in the qualifications of many of our teachers."

This complaint has been made so often and so long and in so many quarters, and our examination standard has been so wretchedly low, that I intend to make a strenuous effort to secure without further delay more and better attention to English composition. And by English composition I mean not simply essay-writing, the great staple of our schools, but letter writing and systematic *oral* composition as well—composition of all kinds, written or prepared, both at home and in school.

In view of the importance of the subject, the present provision in nearly all our schools is quite inadequate; and I have asked you Principals to co-operate with me by increasing it. How best to teach the subject, I am now discussing at my official visits, and I need not take the question up here. Let me say, however, that I do not believe in the general applicability of the dictum that the more one writes, the better writer he invariably becomes. The dictum holds true in the case of the person, usually an adult, who is anxious to improve himself and is able to act as a self-critic. But, if this is the state of mind of most High School pupils,

especially in the lower forms, all I can say is that my experience is sadly at fault. *Our* pupils need to write under competent criticism. Without it, *their* errors are simply ingrained. Let me warn you also against attaching too much importance to the study of models, especially in the junior classes. In the old days, the correction of false syntax was the staple of composition teaching. If I am to judge from what I see now, there is reason to fear that this defect is being replaced by another—too much rhetorical analysis and too much study of models. In my humble judgment, there is no other subject to the teaching of which the dictum, “We learn to play on the harp by playing on the harp,” applies with greater force; and there is no other subject for which individual supervision is so much needed or for which, in the case of the junior pupil at any rate, a text book can be more easily dispensed with. The best text book is the pupil’s own work. Paucity of ideas and meagreness of vocabulary—these are your main obstacles, especially with pupils who came from uncultured homes or who have no taste for reading. In addition to preparatory work in the class, the use of the library, both school and public, should, therefore, be systematically encouraged, in addition to the provision of a good course in English literature for Forms I and II, and of supplementary reading in Forms III and IV.

Rhetoric for examination purposes should not appear in our remodelled programme before Form IV. Until then it should simply be taken up incidentally as part of the composition lesson. But even under present circumstances, a few weeks’ systematic treatment of the information thus obtained will amply suffice for the examination.

Reading the compositions is, I well know, a most laborious task; and, although the principle of the division of labor is an excellent one, it must give way to due consideration for the physical capability of the teacher. The work should be divided, so that no one shall be unfairly burdened, and, when possible, the teacher of composition should also be the teacher of the literature or the history of the form.

As to English literature: the texts prescribed for Forms III and IV must always be the backbone of the work in these forms. Next year, as you know, it is proposed to have a play of Shakespeare’s in Form III, in addition to certain selections from other poets. This is the beginning of a reform which has been long delayed; but its object will be defeated if the English teacher bases on it a claim

for additional time or proceeds to deal with the play as has hitherto been customary in Form IV. Even in Form IV, let me say, there is now altogether too much minute, and especially too much so-called æsthetic criticism—criticism which often makes the study a hated toil instead of a heartfelt pleasure and has often defeated the true purpose of the course. The teacher who fails to produce in his pupils a love for literature is the dearest kind of failure even if he tops the Province at the July examinations.

So far as the play of Shakespeare is concerned—and I believe I speak with authority—the candidate will be required simply to know the meaning of the text and to have read it often enough to be thoroughly familiar with it. Now, at least, the teacher may give minute and especially æsthetic criticism the go-by for the nonce. Now he may bury Dowden and Moulton “deeper than e'er plummet sounded.” The appreciation of the play will come if the pupil is capable of it; you cannot make him appreciate it by precept. The subtlest and best qualities of literature defy analysis, and can be approached only in the dumb submission of admiration and delight. Dull, indeed, must he be of soul who could pass them by. Memorization of the finest passages is prescribed by the regulations. Let me ask our younger brethren to exercise a wise and economic discretion in making their selection. Don't, pray, ask your pupils to memorize some passage for each day's lesson. This is simply cruelty to animals. Select, as prescribed, only the finest passages. You may miss the passage selected by the examiner; for examiners, like “ither mighty men,” have their off days; but, at the worst, this means the loss of only a few marks, and what is that compared with the waste of time and energy involved in learning by heart matter, good enough in its place, but not worth storing in the treasure house of the memory?

Let me also advise you very strongly to discard the High School Reader as soon as you can, and to use instead in Forms I and II unabridged works of a proper character. Three or four, including a play of Shakespeare's, (“The Merchant of Venice” for Form I; and “Julius Cæsar” for Form II) should be read each year. For the special drill of the reading class select therefrom suitable passages. Aim at securing the habit of intelligent and intelligible reading, not at dealing with every conceivable difficulty. Leave as much as possible to the pupils' stimulated intelligence.

Reading, I may here add, is prescribed as part of the Literature course, and the regulation is pretty generally observed. But its

observance is, I say it with regret, in nearly every case little better than a form. You "keep the word of promise to our ear and break it to our hope." Reading with feeling and expression is what is wanted, and the teacher should himself always be a good reader. "Thoughts that voluntary move harmonious members" appeal to the intellect and the emotions far more through the ear than through the eye.

As to the Languages: the neglect of pronunciation is a most glaring and a far too general defect. In some ways, I believe, the introduction of the continental mode of pronouncing Latin has been a mistake. To the ordinary public the system seems grotesque, and it cannot be followed in common intercourse in the pronunciation of proper names. Quantity, a necessary detail, is too often neglected, and what the general gain has been I have so far been unable to see. For the present situation some of the universities, I am told, are primarily responsible. There the professors and the lecturers are said not to be agreed among themselves. There a lapse in quantity or a mispronunciation is frequently ignored. In Moderns the pronunciation of German is more easily acquired than that of French, and is accordingly better. But the pronunciation of French is generally poor, even in the highest forms. As in the case of Classics, there are some teachers whose own pronunciation is not so good as could be desired; but there are few, indeed, who are not fairly capable. The examination octopus, with its far-reaching tentacles, is, of course, chiefly to blame. But you might do more than you do. Experience convinces me that there are few cases in which, with a little systematic care, especially at first, you may not succeed in getting at least fair results without imperilling the chances of the July examination.

As to Science: the methods and the results in Physics and in Chemistry in particular, are now, on the whole, as good as the courses of study, the equipment, and, above all, the examinations will permit. In Botany, however, even if regeneration of the Science course is delayed, the necessary improvement may be made at once, now that we are free from the stress of the examination. Plants, in our lowest form at least, have been treated as dead things—analyzed, classified and recorded in a note-book, or stowed away in a herbarium just as minerals are in a cabinet. Pupils have not realized that plants are as much alive as animals, and that, like them, they have life problems for us to study. The

modern emphasis on physiology and oecology is a protest against what has been aptly termed the style-and-stigma botany of the schools.

Now a word as to the best means of improving generally your professional skill. Every teacher, I need not tell you, should read the best professional works that appear from time to time, and should be a subscriber to at least one good professional magazine. Our ideals in education, like our ideals in many other departments of human thought and activity, are continually undergoing evolution, and the progressive teacher cannot afford to ignore any movement that concerns any part of the sphere of education. I think I can hear some of you say, "Oh, this is only the old story over again." Of course it is. The question for some of you is, "Does the old story need to be told over again?"

Twenty years ago, during Dr. Ryerson's *regime*, the teacher had the right by regulation to take a week off each year for visiting other schools. In the United States some School Boards give a teacher who has served them for some time, leave of absence for a whole year—just think of it, for a whole year!—with full salary, too, that he may travel and improve himself. You and I, however, will have disappeared from off this earthly scene before the average Ontario School Board can be induced to follow suit. Some of our trustees are liberally enough disposed; the ratepayer isn't. Now and then the spirit is willing; the purse it is that is always weak. You might be let off, however, for a few days to visit other Ontario schools, with an occasional excursion across the line, at your own expense I am afraid; but even thus your reward will be great. "Iron sharpeneth iron, so a man sharpeneth the countenance of his friend."

To the younger teacher I have a word of further advice. The University of Toronto now offers two pedagogical courses leading to the degrees of B.Pæd. and D.Pæd., and Queen's University, I am told, intends to offer a pedagogical course leading to the degree of Ph.D. Take one of these courses, by all means. For the older teacher, the work of reading for an examination may be too exacting. For you, however, fresh from your college halls, the task is a comparatively easy one, and the courses of reading thus offered will be of infinite service to you in your future career.



## III. RELATIONS TO YOUR LOCAL PUBLIC.

So far I have offered you suggestions on the subject of your professional work; I have now to offer you some on the subject of your relations to your local public.

How can the High School, in addition to its direct work of teaching, become an important and beneficent factor in the life of the community?

My answer to this is: Be a good citizen as well as a good teacher.

It is a mistake to live for one's self alone, either personally or professionally. Take an active, but *judicious*, part in all matters of local importance in which your influence can be felt. I emphasize the word "judicious," for you need to remember that you are public servants—the servants of all political parties and of all religious denominations.

So much depends upon the conditions and upon the character of the teacher, that it would be impossible for the most experienced to define the actual sphere of your influence. Speaking generally, however, I should say that the teacher must avoid a situation in which, whether the question is one of morals or of policy, he is likely to make himself offensive to any important section of the community. Have not, however,

"Too much respect upon the world :  
They lose it that do buy it with much care."

But there are many avenues of usefulness open to all of you. You can take part in the management of the Public Library—a most important adjunct of your school. *You* are the custodians of the interests of by far the most important part of the community—the rising generation—and who, in the community, can be so well fitted for the task of selecting their literature as you are? You can also organize suitable lectures and entertainments in connection with your schools. Besides such local talent as may be available, you can secure the University extension and other outside lecturers. The experience of the Lindsay Collegiate Institute, in particular, also shows that our leading public men can on occasion drop the role of politician, and gracefully and effectively aid in the good work of educating the public. Nor should I omit yourselves. Some of the most useful and successful addresses I have heard of have been given by members of the High School staffs.

Cultivate also the good-will of the parents and the citizens generally, and have them attend the public meetings of your literary societies. All this should be done from higher motives; but, as a matter of fact, in following this course, you are taking a most effective means of keeping your school before the public, and of educating the public to the advantages of higher education. Many a High School, indeed, is not so popular as it should be, simply because the people do not know the character of its work.

And, even outside of matters which are more or less directly connected with your professional work, there are others in which you can take part. One Principal tells me, for example, that he has held offices ranging in importance from the treasurership of the junior football club to the presidency of a local loan society. The presidency of a loan society! This last statement, I must confess, I make with some hesitation. It is really so surprising, that I feel bound to add that, although hitherto I have always found this Principal to be thoroughly reliable, I intend to verify it when next I visit the town he lives in.

It is also part of your duty to cultivate the friendliest relations with your professional brethren in the locality—your own colleagues, the Public School Inspector, and the Public School teachers—and, in particular, to attend the County Teachers' Convention. The amount of professional benefit you yourselves may derive from such meetings may sometimes not be great, but you may be of service to others. Besides, the Public School makes the High School, and, even from personal motives, you are bound to advance its interests in any way you can.

Your school is almost always the highest educational institution in your locality. Make it, in the best sense of the term, a local university. You, yourselves, are at least amongst the best educated. Be the educational leaders of your community. If you Principals, too, are the men you should be, and your trustees are not of an exceptional type, you will besides control your Boards in all matters in which as teachers you are directly concerned. I have, indeed, known the appointment of a Principal of strong personality to change wholly in a very few years the attitude of his Board and and of the local public towards High School affairs. From being penurious, the Boards have become liberal; and, from being opponents of higher education, many of the public have become its most ardent supporters. Take my word for it, the success of a school depends infinitely more on the character of its staff than it does

on equipment or on accommodations, important though these must always be.

This suggests another point. As teachers, your daily duties debar you from obtaining that important part of education which others obtain in the ordinary course of business by rubbing shoulders with the world. For six hours a day your word is law, and for six hours a day you are dealing with immature minds. If your character is to become what it should be, you must deliberately put yourselves in the way of securing that training which comes insensibly to others, and the want of which has sometimes marked us out from our fellow-men. You can be a scholar without being a recluse.

#### IV. RELATIONS TO THE GENERAL PUBLIC.

Now for another, a broader and equally important question.

Have the High School teachers as a body the standing in the Province and the weight in matters of educational policy which their professional attainments and the importance of their duties entitle them to? My answer is: Hitherto you have not.

Your positions, it is true, are, in some ways, less independent than those of the members of the other professions. You are the paid servants of a local public, and, in a measure, the servants of a political head. How these act as obstacles I need not point out. You know at least as well as I do. But these obstacles are not so serious as they seem, and I congratulate the Association on having this year at least struck a bolder note.

The members of the National Educational Association have many of your embarrassments and others perhaps even worse, and yet its reports and recommendations have of late years practically directed the course of education in the United States. Is this true of the Educational Association of Ontario? Is it true of the College and High School section? A few of you have weight, but it is the weight of personal influence. As a body—pardon me for speaking plainly—your influence is not what it should be.

“The fault, dear Brutus, is not in our stars,  
But in ourselves, that we are underlings.”

One cause, and probably the main cause, is your want of solidarity. There are few subjects on which you have been fairly united. Twenty years ago it was different. But then there were no sections and subsections of this body, and then the reign of the

specialist had not begun. Disputes about minor points have sometimes blinded you to the importance of larger issues and prejudiced the public against you. Take the programme of studies, for example, including the question of options. Their proper correlation cannot be determined by the independent action of different sections, each of which thinks wholly or almost wholly of itself; or by your action as a body so long as your findings are the haphazard results of a struggle amongst clashing interests. Here I may say, I trust without offence, that it has always seemed to me most unfortunate that the University Honor courses specialize so soon. In a University, as well as in a High School, liberal culture with its broadening influences is at first even more to be desired than high scholarship in special departments. The latter is sure to come.

Permit me to suggest that it would be well if your subsections confined themselves to work of a purely professional character—Pedagogy and Scholarship—leaving matters of general policy to the College and High School section, or to the General Association, according to the scope of the interests they concern.

While, also, it is eminently proper to have proposals discussed from all points of view, even from that of the youngest assistant, the conclusions based thereon should be settled by a small representative committee of your ablest and most experienced members. There is no other subject in which ripe experience and well-balanced judgment are more imperatively needed than in the one you deal with, and the conclusions of such a representative body should be loyally accepted by all of you. If, however, the future of our schools is to be settled on any other basis than that of educational principles—if those in authority are to please this body of specialists or that body, to placate the Public School inspectors, or the Public School masters, or the University professors, or it may even be to see to it that the examination fees are proportionately divided—then all I can say is: Heaven help our schools!

It is not enough, either, to ask once for what you want. You must keep on asking for it till you get it. Persistent efforts, let me tell you, may be needed to strengthen the hands of those who sympathize with your aims, and it is even possible that persistent efforts may be needed to turn the scale in your favor, when other considerations give pause to those in whose hands the settlement rests.

Another reason for the small influence of the College and High

School section is, I believe, the part still played by the Universities. It would be ungenerous to forget that some of the University men are amongst your ablest and most useful members, but a good many are not members, or are only occasional visitors. The situation is certainly better than it was eight or ten years ago, but there is not yet that sympathy between the Universities and the High Schools, which would redound to the advantage of all parts of our educational system. Nay, further, some of our University men—and I venture the statement in the friendliest spirit—show a singular ignorance of the condition and requirements of primary and secondary education. In the United States it seems to be different. There the highest functionaries of the leading Universities—of Harvard, of Yale, of Columbia, of Chicago—are more than critics: they take an active and intelligent part in the deliberations of the National Educational Association, and are the leaders in every movement that makes for progress in national education.

On one other matter I have a word to say. You should have a school journal, worthy of you, in which to discuss matters of professional and of public importance. Two proprietary magazines, it is true, even now exist; but, with all due respect to their claims, neither of them can be said to represent fully—as yet, at least—the aims and necessities of our secondary schools.

I had intended to discuss the desirability of a superannuation system; but this is now unnecessary in view of the Premier's announcement in to-day's papers that he contemplates preparing a scheme for submission to the next Legislature. The teacher is a sort of civil servant, and as such he has claims upon the public which cannot be urged by the other professions. Here let me say that we are justified in describing our calling as a profession. The high importance of your duties everyone admits. Your education, too, costs in both labor and money at least as much as that of the ordinary professional man; and you now enter the schools almost invariably to make teaching your life work. It was not so fifteen years ago. Then the voice of the carpet-bagger was heard in the land. But, in the process of educational reconstruction, the carpet-bagger has almost disappeared.

I have always seen much to commend in Dr. Ryerson's superannuation scheme; and, while owing to the growth of the profession, it might in the eyes of an unsympathetic generation have turned out to be on too liberal a scale, there is reason to regret that it was abolished, not remodelled. School Boards have now, it is true, the

power to pension deserving teachers, but it will be long before public opinion will justify many of them in availing themselves of the provisions of the statute. It is, as you know, often hard enough now to get the money actually needed for current expenses. Under these circumstances the Premier's announcement will be hailed with pleasure. Hope, however, sometimes tells a flattering tale, and it would be well for you to see to it that your interests are properly presented and properly pressed.

### CONCLUSION.

Now let me close this long-winded budget of suggestions by offering you a little fatherly counsel. I say "fatherly," for over forty years' service in the cause of secondary education surely entitles me to at least the privileges of age.

Plutarch tells us that when Demosthenes was asked what was the first part of oratory, he answered "Action"; and which was the second, he answered "Action"; and which was the third, he still answered "Action." If one of us had asked the late GEORGE PAXTON YOUNG, of immortal memory, which was the first part of teaching, and which the second, and which the third, his answer in each case would, I am certain, have been "Enthusiasm." No one who knew him can doubt it. Carlyle, too, tells us that the *pou sto* Archimedes wanted to move the world, was enthusiasm; and, in the moral world at anyrate, Carlyle is undoubtedly right. Nothing great can be achieved without enthusiasm, and it is wonderful what it does achieve. With enthusiasm, the teacher's work is effective even when some of his sins are red as crimson. Without enthusiasm,

"Duller shouldst thou be than the fat weed  
That roots itself in ease on Lethe's wharf."

There are, I believe, two main requisites of enthusiasm. The first is Good Health. Let nothing keep you from your daily exercise in the open air—neither rain nor snow, nor heat nor cold. Look well also to the ventilation of your class-rooms. Under the benign influence of a well-regulated liver, you will find that worry, the teacher's heritage, is robbed of half its terrors, that cases of discipline are fewer or are more easily dealt with, and that every hour you teach you have "the soul's calm sunshine and the heartfelt joy."

The other grand requisite of enthusiasm is Reading. I have already spoken of the necessity for professional reading and high scholarship. I now mean more than this. I mean wide and varied reading. "Reading maketh a full man." Out of your abundance you will have a wealth of resource and of illustration that cannot fail to give life and freshness to your daily task. Only thus, too, can you surely broaden your sympathies and avoid that narrowness of mental vision which doth so easily beset us. Books are, indeed, a pool of Bethesda whose waters the Angel of Desire may continually trouble. Here there need be no limitation. The last will be healed as well as the first. Here the strong will be made stronger, and here our impotent folk—the blind, the halt, and the withered—will be made whole of whatsoever disease they may have. Nay, more;

" Books, we know,  
Are a substantial world, both pure and good.  
Round these, with tendrils strong as flesh and blood,  
Our pastime and our happiness will grow."

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*THE OVERLOADING OF THE HIGH SCHOOL CURRICULUM.*

E. W. HAGARTY, B.A., TORONTO.

## MANY STANDPOINTS.

There are many standpoints from which this subject can be viewed. There is that of the University and the Education Department on the one side, and that of the High School on the other. There is that of the mathematical professor and that of the High School teacher of mathematics. Similarly of the classical professor and of the High School classical teacher. Likewise in Modern Languages and in Science. There is, too, the standpoint of the honest pupil at school and that of the intelligent and anxious parent at home. There is the standpoint of the examiner who annually groans over results. There is the standpoint of the medical adviser. Besides all these, and surely worthy of consideration, there is the standpoint of the *impartial, disinterested educator*. This latter, I take it, is the one which will be complacently and without argument on my part, adopted by the majority, if not all, of my hearers. No doubt we all claim to be ideal educators and to have an ideal standpoint. Let us make sure that we have this standpoint before we begin the consideration of the subject. I once had the temerity to enquire the opinion of a university professor on a certain point. The professor was a member of the senate and therefore, I suppose, one who had a good deal to do with the periodical attempts to balance and nicely adjust our High School curriculum. The point on which I sought his opinion was one of general educational interest, and one on which any educationist, especially one charged with the duty of assisting to frame a curriculum, ought *to have* and *to exercise* an opinion. The answer I received was a diplomatic intimation that the professor made a point of never (*never*, mark you, neither in private conversation nor at senate committee meetings, I presume) interfering in any question that did not concern his own department. I could enlarge upon this, but my remarks at present are merely introductory—on the subject of standpoints. The application is obvious. Now, are we going to bring this spirit of exclusive departmentalism into the present discussion? If so, our time will



be wasted. Surely it is not too much to expect that for one brief hour, no matter what our attitude in everyday practice may have been, we shall look at this important question from a common, disinterested standpoint. Let us cease to be Classical or Modern, Mathematical or Science, and for the while endeavor to be in spirit simple educators.

#### THE EVIL.

Having thus cleared the ground, let me proceed at once to the subject under discussion. For many years I have felt that in High School work we are *attempting too much and accomplishing too little*. With added years of experience this conviction has grown upon me, until now my observations have, during the last year, culminated in a very close sort of personal experience prompting me to make a move in the direction of bringing about a reform. For years I have felt the pinch of overwork in my own department. For years, in common with others, I have struggled for relief. All this time I have been trying to do two things, do the work of education and "pass" my pupils: two very irreconcilable things under present circumstances. In the latter, thanks to the wretchedly low standard, I think I have had a fair share of success. But in the former, I believe, I have been and am still a lamentable failure. I have watched successive generations of pupils struggling with an impossible task—that of mastering a reasonable portion of the work given them to do. I have watched them annually ground out of the examination mill as "passed" and known in my heart that they were not, even in the stage from which they had triumphantly emerged, educated. This year I have had the painful experience of watching a boy of my own crushed under the iron tyranny of an exacting curriculum. I knew what was coming when he reached the third year of his High School course, and dreaded it. The first two years of our course are preparatory, and we take our time to lay a foundation, doing it with fair thoroughness, except that, owing to the farcical Part I examination, many pupils have slipped through to the third year stage whom we, if left to decide our own standard of promotion, would have forced to apply themselves with greater zeal and intelligence to a reconsideration of the preparatory work. However, even for the average and more than average pupil the third year of our High School course has terrors of a disastrous kind. It is there that they begin to wilt, to lag, and to drop into a weary struggle for the paltry thirty-three per cent.

Charity begins at home, and to show that I have not come before you to-day without first endeavoring to set my own house in order, I ask permission to quote a few words with which I introduced a similar protest before the Classical Association last year.

Speaking of the excessive curriculum in Latin for pass matriculation, I said: "The mistake is being made of requiring our pupils to try to do too much, and of condoning their failure to do it even half well by 'letting them through' on a miserably low standard.

"It is the duty of the secondary school (1) to lay a solid foundation for what literary and scientific work the student may have to do in the University, and (2) to give all its pupils, irrespective of their University career, a training which, so far as it goes, is productive of power and conducive to a healthy, well-balanced mental atmosphere. Now, I ask, 'Is the teaching of Latin in our schools to-day fulfilling either of these requirements?' So far as the purposes of the University are concerned, the answer is forthcoming from University instructors themselves. One professor remarked to me the other day that he found his students not nearly so accurate in the rudiments as they were some fifteen years ago. Another complains that even our honor graduates in Classics make blunders in quantity which, a generation ago, would have earned for a juvenile offender a thrashing. Why, if our matriculants are being prepared as they ought, are these University 'Kindergarten' classes in Latin grammar taking up the time of instructors who are qualified and are paid to do more advanced work?" Later in the same paper I said: "I honestly believe our High School programme is overcrowded—not necessarily in the number of subjects, but in the amount of work attempted in each. Latin, I believe, has of late years been one of the worst offenders."

Now, with one more year's experience with the wider but painful experience I have referred to, namely, that of seeing my own boy sit down night after night with an amount of home work, not only in Latin but in other subjects, far in excess of even exceptional human ability to do with any degree of thoroughness, of seeing him poring over his books for from three to four hours, and then by sheer compulsion rising with the weary protest that he had not done nearly all, of seeing him go to school day after day with work only half prepared, always behind and with no hope of having time to review or catch up—I say, with this added and

painful experience, I now declare before this body of educators that what I said of Latin last year may to a very large extent be said of our curriculum as a whole.

Strange that my remarks of last year anent the dissatisfaction felt by University men with the present state of affairs, should find corroboration with regard to an entirely different department in the words of a University professor. Prof. Young, of Trinity University, in his admirable paper read at Ottawa last summer, entitled, "What a Pupil has a Right to Expect as a Result of his High School Training in French and German," says, speaking of the sin of working for examinations, "Not only is the aim of the teacher lowered, perhaps insensibly, and independence stifled in the pupil, but a great deal of hasty (therefore bad) teaching and inaccuracy is the result. On the latter point I feel strongly, for I have just finished reading three sets of *scholarship papers* (scholarship papers, mark you) for the Universities of Ontario, the examination being conducted by the Education Department. Hardly one of the candidates (about 120 in number) was able to give correctly common forms of verbs in general use occurring in the prescribed texts. . . . The same kind of mistake was found also and more frequently in the answer to the German papers."

Now, this extract corroborates my statement that University men do not deem the results satisfactory, and that, too, outside of the Classical Department. Without much trouble I think I could find similar evidence with regard to Science and Mathematics. Prof. Young, however, while complaining of the evil of inaccuracy, finds fault with the teacher for working with the examination in view. Are we to have one kind of teaching in our schools and another kind of examination? What are examinations in our schools for if they are not to be worked for both by teacher and by pupil? What are curricula for, if they are not to be followed? Dare we ignore either examinations or curricula? Is it legal, to say nothing of the moral aspect of the question? Come and try teaching according to your ideal, professor, for one year, and then tell us. No, the fault Prof. Young complains of in High School work is just the fault I complain of, haste, bad teaching, inaccuracy. But it is not the fault of the teacher, it is the fault of a faulty curriculum and faulty examinations based on said curriculum.

No one appears to be satisfied. Teachers themselves as a class, I certainly believe, are not. University examiners evidently are not. Parents (I speak as one) are not. The medical profession are

loud in their protests against the injury being wrought the race by our elaborate system of cramming. Just the other day an eminent physician of the city, who in his time was one of the most successful teachers in this Province, told me that in his own practice this year he could point to three pupils who were rendered physical wrecks before Easter. He thinks our whole system is wrong, though, as an enthusiastic young "crammer" in his own day, he thought the patent, cut-and-dried method of stuffing the pupils was admirable.

I say the slipshod inaccuracy of our teaching is due to an overloaded curriculum. Why, then, with so much dissatisfaction on all sides, among University professors, among teachers, among parents and among the medical profession, to say nothing of the groans and discouragement among pupils themselves, has this state of affairs been tolerated so long? Simply because we have been deceiving ourselves, deceiving our pupils, deceiving the public by the annual examination list, which never fails to loom up in grand proportions, thanks to the miserable 33 per cent. standard. We soothe our conscience and allay the disquiet of the public by "passing" pupils who have not been educated, but crammed. A medical student came to me last June to be crammed in Latin for July. He had the most meagre knowledge of Latin accident, had read no Caesar or Virgil, but wanted to pass. I loathed the task, and at any rate was too busy. A friend took compassion on him. The student passed. Yea, verily, he passed, with just a month's cramming. And this is the way our University "Kindergarten" classes are filled up. No, worse than that, they tell me it is not necessary even to pass in order to get into the Kindergarten class at the University. That is it, they give us too much to do properly, put up a sham barrier, a low hurdle so to speak, and then steal our pupils from us by letting in at the back door those who cannot even jump the miserable barrier. "Is ours an educational system?" I ask.

I might say, that in order to obtain specific proof of the way in which home-work is pressing upon even good pupils, I recently gave out to some dozen reliable students of the pass matriculation class, blank forms to be filled in as a month's record of their home-work. A glance at these shows that the pressure is chiefly in the languages, that practically the whole evening is spent by pupils in attempting to get up translation without covering anything like the work assigned. As far as my observation goes, the work

prescribed in German translation is ridiculously (no, I will say painfully) large. It is about as absurd as the work in Latin. I do not think it is any breach of confidence to say that I know that lessons were assigned to beginners in German translation this year, which the teacher admitted would have taken her as a beginner two hours to study. What time is left, I would ask, for other memory subjects, such as History, English Literature, Euclid, Physics, Chemistry, to say nothing of the enormous amount of time taken in planning, composing, scribbling and re-writing the monthly essay in English Composition? The records I obtained show that the bulk of the time at home was spent on looking up long lists of words for translation, wrestling with about half or a third of the sense, and that such subjects as History, English Literature, Science were slighted. No home-work seems to have been expected in Mathematics, at least practically none was obtained. Now this may seem strange coming from a language man. But as a language man I protest against such a state of affairs, especially seeing that the results are so shabby even from a language standpoint. Practically the bulk of the pupil's time at home is spent on language "fagging" (I will not call it study), with such scrappy results as Mr. Young has portrayed.

#### THE CAUSE.

Now I have dwelt at some length on the evil. Let me point out briefly how, in my opinion, all this has been brought about. Why have we so inflated, so disproportioned a curriculum? I attribute it simply and entirely to the way in which our matriculation curriculum is made.

1. There is no common educational standpoint.
2. There is too much bickering among departments.
3. The views of High School teachers as to the capabilities of their schools, and as to educational effects and ideals, are not sufficiently studied and acted upon by our University authorities.
4. The pass curriculum is framed too much with an eye to the requirements of the honor course in each department without reference to the general effect.

As to the lack of a common educational standpoint, the incident of the diplomatic professor who never ventured to express an opinion on any matter outside of his own department may be taken as an illustration. How can a committee which sits down to work with each of its members thinking solely of his own department,

frame a curriculum sufficiently well balanced, or kept within bounds, to have a good general educational effect? If each thinks exclusively of his own department, who is to think of education?

On the bickering between departments let me quote Professor Young again:—

“Classicist and Modern have fought in Ontario in the days gone by and I am not sure that the fight is over yet. Instead of so doing they ought to have been working together, as those whose cause is one for the advancement of the interests of education generally.”

How can a curriculum be duly adjusted and curtailed when this kind of war is going on? Who is to decide between the warring elements? Obviously those who know least about the points in dispute—the outsiders, the representatives of other departments. Hence the rule, I suppose, as to non-interference adopted by our diplomatic professor. Two departments engage in deadly combat. The disinterested non-combatants who ought to be standing by to give the umpire’s decision, quietly view the proceedings until, I suppose, the contestants, like the Kilkenny cats, succeed in effacing each other, or, what is worse, arrive at a compromise in which the cause of education is effaced in the mad struggle to see who will pile on the most work.

In the comparatively insignificant question whether Greek shall off-set one modern language or two, a great deal of powder is wasted by experts on both sides, and a snap vote is taken, influenced largely by the amount of pro-classical or anti-classical prejudice in the Senate. But, on the really important educational question, how much Latin, German or Chemistry can properly be studied for pass Matriculation, each department sits down as it were (that is when they are not standing up to fight), with its back to every other department and decides. Such a thing as a mutual summing up or balancing, with a view to a reasonable total amount, seems not to be thought of. If there is an occasional peeping over the shoulder to see what the other fellows are doing, it is not improbably with the object of watching for some moment of weakness of which advantage may be taken. To illustrate, I will quote a story as I received it from my esteemed and unimpeachable friend, the Secretary: “Some years ago, owing to the protests of Mr. Smyth and other Science teachers, the amount of Chemistry for pass matriculation was reduced. This was promptly followed by a corresponding increase in the amount of Latin translation imposed on the unfortunate student.” And, I suppose, now a reduction in the

amount of Latin will probably be followed by a corresponding increase in something else. At least the fear of this I believe is the chief obstacle to a reduction in Latin.

On my third and fourth reasons for the faulty curriculum, the failure to study and act upon the views of High School teachers, and the tendency to base the pass curriculum on the needs of the honor courses, I shall not enlarge. The views of High School teachers are taken and sometimes sought. But this is not done systematically, and there is no systematic method followed for crystallizing such views and bringing them forcibly before the Senate. The pass course can be trusted to discover clever specialists for the honor departments, but it should be adapted to the educational requirements of the average student. Specializing should not begin till the honor course has been embarked upon. The question should be, not "What pass work in his department should an honor man know to begin with?" but "What amount in all the subjects can the average student in the pass stage assimilate to his own advantage?"

#### THE REMEDY.

Now I come to the remedy. If you are not satisfied with things as they are, if you agree with me that the evil of our system is *over-work and its invariable correlative, lack of thoroughness*, let us, as men and women of sense and consistency, stop and consider what is to be done about it. Surely we are not to content ourselves with complaining.

In theory, no doubt, the remedy has already suggested itself:

1. Let us drop our narrow departmentalism and adopt a common educational standpoint.

2. Let us advocate two things from this standpoint—a curtailment of the work attempted, and the raising of the standard of thoroughness by increasing the pass limit to 50 per cent. on suitable papers.

In practice, how is this to be attained? I suggest and hereby propose as follows:

1. That a permanent committee of eight be appointed by this College and High School Department, to be called "The Educational Committee."

2. That this committee be composed of two from each department one University and one High School representative.

3. That this committee be instructed to watch all proceedings with reference to the Matriculation curriculum from a purely

educational standpoint, utilizing departmental knowledge and opinion only so far as is necessary to arrive at an intelligent decision on the broad issue of education.

Now, ladies and gentlemen, I have taken up your time at greater length than I intended or wished. I have not sought to convince, but merely to rouse to action those whom I believe to have been already convinced. I am but a humble member of the teaching profession, a mere private in the ranks. No doubt a good deal that I have said may seem bold. Some may not agree with me. But, at any rate, I beg of you to go at least this far with me. Ask yourselves if you are satisfied. If not, what is the disturbing element? If you can make up your minds as to that, act, and act quickly. I now beg leave to move:

1. That the amount of work for pass matriculation be generally reduced.
  2. That the standard be raised to 50 per cent.
  3. That a committee of eight be established to supervise details.
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## MODERN LANGUAGE SECTION.

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*NEW PHASES OF MODERN LANGUAGE TEACHING.*

A. W. BURT, B.A., BRANTFORD.

Owing to my absence from the session of this Society at which the election of officers took place last year, I was not aware till after the year's meeting had closed that you had elected me your President, and therefore I have had no opportunity until now of thanking you for the honor you conferred upon me. However unfit I may be in most respects for the position in which you have been so kind as to place me, I may, I think without presumption, lay claim to one qualification, that I have been a regular attendant at the meetings of this Society almost from the time of its formation, and that I have thus had opportunities to keep in touch with its efforts to improve the status of modern languages in our High Schools and universities, and to absorb something of the wisdom that has been poured forth in your deliberations. Before coming to the special subject of my paper, "New Phases—I might perhaps rather have said, The Newest Phase—of Modern Language Teaching," I shall ask you to permit me to use the experience I have gained in taking stock of our work; in other words, in briefly considering what have been our losses and gains during the past twenty years.

Possessed by a spirit of impatience to see adopted those changes which I have thought desirable, I have sometimes returned from attendance at the meetings of this Society with the feeling that advocating reforms is a weary and impotent kicking against a stone wall of pedagogic conservatism; but I must acknowledge, when I make up the balance sheets, that if we have been slow in branching out into new lines and have done our business for the most part in a steady, old-fashioned way, we have more than held our own; and, indeed, in most departments we have made very substantial progress.

To begin with English. Here, to my mind, in the sub-departments of literature and composition especially, the most decided

advance has been made. Twenty years ago, apart from memorization of the texts, the study of literature consisted mainly in learning the biography of the authors of the selections chosen and of their contemporaries and forerunners, in grammatical analysis of the more difficult passages, the study of figures of speech, and of the derivation of the words. To-day these phases of the work are relegated to their proper subordinate position, and the attention of the student is, as it should be, directed mainly to the thoughts and feelings expressed and to the most striking features of the mode of their expression. In speaking of the advance made in literature, one cannot in justice pass without notice the great improvement which has taken place in recent years in the character of the examination papers. Less than twenty years ago, for example, there was, to speak of one point only, a question set on the derivation of words which the united knowledge of two teachers of literature—one a modern language graduate of fair standing, the other a classical man whose course in Toronto University had throughout been most distinguished—was inadequate to answer. This question was set to candidates for second-class teachers' certificates. It will find no counterparts in the examination papers of to-day, whose only noteworthy weakness is one inherent in an examination upon definite selections, namely, that they test the diligence and memory of the student rather than his mental grasp and originality. This is a difficulty which, as far as I can see, is only to be overcome by making the examination deal almost wholly with sight passages, a consummation I am radical enough to wish devoutly.

Literature, however, no distracting influences can wholly rob of its interest and inspiration; so that bad methods are a less serious matter here than with composition, a subject associated in the minds of most of our pupils thoughts of drudgery, and yet the flower and fruit of our school work, the one subject in which we have daily to submit ourselves to examination before our fellow men. This subject did not suffer much in past days from bad teaching, for it was seldom taught at all. I have within the last five years admitted to my school a pupil who had taken a full Public School course, and had spent two years in a High School, and who assured me he had never written an exercise in composition except at the entrance examination, and had never had his attention called in any way to the subject except in correcting "false syntax" in the grammar classes, and in the criticisms of mistranslations from

Latin and French. This neglect, however, is now passing away under the influence of an awakening sense of the importance of the work, aided by some suggestive text-books, and especially under the stimulus of a recent *pronunciamento* of the High School Inspectors, that no school is to be graded "I" in English where at least two hours a day are not devoted in each class to teaching composition. I expect, however, that what I say to-day about not teaching written composition in the past will be said in years to come of our neglect of oral work now. We have, of course, in some of our schools literary or debating societies, where our more gifted or more forward pupils gain some practice, but we have generally no regular provision for this important work, in which respect, as perhaps in some others, if our self-sufficiency would let us see it, we are far behind our friends in the United States.

The improvement in text-books and examination papers in English grammar since the leaven of the new ideas introduced, I think, by Mason has had time to work is to be regarded as a decided gain. The subject, however, as taught in our schools rather affords means of exercise for the logical powers than for the development of language faculty. It might perhaps be expedient to replace in the lower classes especially, a great deal of the analysis and parsing which now occupies most of our time by orthography and orthoepy, which used to be included in grammar, and attention to which might remove, in some degree, the reproaches that graduates of our High Schools are often unable to write a simple letter without gross mistakes in spelling, and that many otherwise well-educated Canadians lack the pronunciation of men and women of culture. It seems to me, too, that we have incurred a loss in giving up the systematic study of the derivation of words, and that a reversion to past usage in this respect might be made that would not involve the retrograde step of again confounding literature and philology.

And now I come to French and German, the subjects which perhaps bulk most largely in the interest of this Society. Here, again, we find more gains than losses, but I am afraid some tendencies to retrogression. Our chief gains have been in the excellent means of teaching composition afforded by the new High School French Grammar (I wish I could say as much for the companion text-book in German), and in the substitution of composition for grammar in the examination papers. We have also taken a step in the right direction in introducing sight passages in the "authors"

paper, though here we have, I think, gone by no means far enough, for the longer I observe the teaching of French and German, and I might add, of Latin, the firmer becomes my conviction that the examination in translation into English should be entirely upon sight work, with limitations of vocabulary and idiom, based perhaps upon prescribed texts,—texts which, in the interest of the teacher, should be subject to yearly change. Here we come to a step recently taken which seems to me most decidedly retrogressive, namely, the selection of a set of extracts to be permanently used, so that the poor teacher will have to drone over them year after year, reeling out translations he knows by heart of passages that have become nauseous through weary iteration. In a line with this (If I may judge from what I have heard concerning the marking of “authors” papers) is the requirement of good idiomatic yet fairly literal translations, a requirement no pupils not linguistic geniuses can satisfy without previous memorization. This the scholarly author of a pamphlet, recently distributed with praiseworthy generosity and zeal among the modern language teachers of Ontario, calls “thoroughness,” and he euphemiously conveys a threat to the poor High School men in expressing the “hope” that when he next acts as examiner he will not find it necessary to discuss the question whether French and German candidates should be mulcted for being so lazy and careless (these two words are his) as not to be brilliant in English composition, or to have failed to memorize their teachers’ renderings of the difficult passages in the texts prescribed. Marking on a basis like this translations of work covering a limited field is simply putting a premium upon cram, that bane of all but the most carefully conducted examination systems. The same talented writer, in questionable accord with the principle he elsewhere wisely enunciates, that it matters little whether the natural or the grammatical method be the one employed, so long as good results are obtained, comments severely upon the ignorance of tense nomenclature shown by candidates for matriculation. A well chosen tense nomenclature may be of course a convenience to the teacher, but the candidate’s knowledge of it is surely not an important matter to the examiner, whose concern is to find out whether the student can correctly use the varying forms, rather than know the names by which they may be designated by grammarians. With a just appreciation of the duty of the High School to afford the utmost culture possible, the same writer rather oversteps the mark perhaps when he styles the

average student "the chief care, and yet, in a manner, the curse of our educational system," and condemns the effort to manufacture articles of crockery as well as those of silk in our High Schools. This ideal is, I am afraid, too aristocratic to maintain in any educational institution less dignified than a high-class private school. The High School is and should be the school of the masses, and in a democratic and working community like ours the ornamental is necessarily subordinated to the useful. My experience leads me to the conviction that if the High School teacher does not desire his office to become a thing of the past, he must show that the culture he gives is as closely as possible associated with the practical affairs of life, if he does not even go so far as to make practical work the sugar-coating of the pills of culture he desires to administer. I am moreover, by no means certain that subjects of practical value are not as effective a means of culture sometimes as those that lack this quality. It is no doubt true, for example, that the mental exercise involved in tracing the caprices of appetite and fashion or the progress of hygienic science connected with the evolution of the English dinner hour will have value; but it is perhaps equally true that mastering the details of the symmetric and concise system of keeping accounts which the needs and thought of business men have evolved in the course of ages has at least equal value merely in the cultivation of the mind, even if the knowledge gained is to be put to no further use.

The feelings of those who regard modern things of common utility as beneath the dignity of higher education will, I am afraid, be shocked by the suggestion of the use of machinery in language teaching, which is an innovation I am about to advocate. I have little doubt, however, that after satisfying ourselves that the phonograph is really a most capable and efficient instructor in pronunciation, all of us whose aesthetic sensibilities are not too acute, will be won over, as I was, to a sense of the value of this mechanical addition to our teaching staffs.

In speaking of the general improvement in Modern Language teaching I purposely left the discussion of the question of pronunciation until this point. From what I know of the training of many of those who have now charge of this department in our schools, I have no doubt that the improvement in teaching pronunciation is at least as great as in other parts of the work. We may be sure, however, that the tendency to cut down the allotment of time to the bare limits required for preparation for exam-

inations still operates to prevent this subject from receiving due attention, since it is one on which it has been found impracticable to set examinations. We may be sure, too, that the highest standard we can attain in the pronunciation of a foreign tongue is no loftier than that reached by foreigners in speaking our language, and we all know how far from accurate is the pronunciation even of those who have spent years in communities where English is the only tongue generally spoken. Now the chief advantages of the phonograph are these: we can enable our pupils to hear as frequently as they choose the highest types of speech in our own or in a foreign tongue, we can in any place examine them in dictation, making sure of relative fairness in all cases of competition, and we can test whether they have received due training in pronunciation by requiring them to send phonographic cylinders recording sound for sound their utterances. We owe, it seems to me, a debt of gratitude to the institution whose enterprise has proved that all this is not only a feasible, but a simple and comparatively inexpensive, matter.

I might enlarge upon the culture as well as the pleasure to be derived from listening at our leisure to the most highly-trained speakers, from comparing various dialects of our own and of foreign tongues, and from many other delightful exercises which the phonograph can afford. The instrument is, however, waiting to be heard, and I know that it has something to say upon this subject, and that it will say it much more impressively than I can. I therefore leave to it this portion of my task.

I shall conclude my remarks by expressing the hope that the public educational institutions of this province will not be allowed to lack the advantages the phonograph affords, and that our society will devise some means of securing, through the Scranton Schools, or from other sources, the services of what will, I feel sure, prove a most valuable aid in overcoming that neglect of correctness of pronunciation which is one of the most serious defects in our teaching of English and of foreign languages.

*L'ÉTUDE DES LANGUES MODERNES CONSIDÉRÉE COMME  
UN FACTEUR DANS LA CIVILISATION.*

EUGÈNE MASSON, TORONTO.

Pour bien comprendre l'importance des langues modernes et le rôle qu'elles jouent dans l'action civilisatrice du progrès, et aussi, pour entrer tout de suite dans mon sujet et le considérer au même point de vue que moi, il faut comparer le progrès à une grande machine dont le Créateur lui-même est le puissant ingénieur.

Or, dans toute grande machine inventée par l'esprit humain, il y a un certain nombre de roues, les unes petites, les autres grandes, qui contribuent à sa marche; dans l'immense machine du progrès humain, il y a aussi un grand nombre de rouages, si je puis m'exprimer ainsi, qui d'une façon ou d'une autre, contribuent tous à sa marche bienfaisante en avant et ces rouages ou ressorts sont les petites et les grands événements de l'histoire humaine.

Il est évident qu'il n'est difficile pour personne d'admettre que les découvertes scientifiques, le commerce et les missions au delà des mers, les guerres de nation à nation, sont autant de canaux par lesquels nous arrive la civilisation et par lesquels elle se propage dans tous les coins de l'univers. Et ces divers moyens, dont se sert le progrès pour arriver à ses fins, qui sont avant tout de mettre en contact des éléments opposés, n'ont tous qu'un but : la perfection physique, intellectuelle et morale de la race humaine ; car quelle que soit l'opinion de certaines personnes arriérées, complètement adonnées à la routine (cette peste morale !), le progrès, en faisant naître des innovations et des inventions dans le cerveau de certains génies, le progrès, que nous le reconnaissons ou non, vise à la perfection de la race humaine, et apporte à l'humanité entière (non pas à quelques classes privilégiées, mais aux masses), il apporte, dis-je, une somme plus grande de bonheur, et de bonheur plus élevé, et rien ne peut arrêter sa marche triomphante en avant. Certes, le progrès de la civilisation humaine semble parfois reculer, si je puis m'exprimer ainsi, mais ce recul n'est qu'apparent ; c'est une période que j'appellerai une période d'enfantement et si, en effet, à la suite de certains événements, l'horizon de la civilisation semble s'assombrir, il faut comparer ces événements contraires, aux nuages sombres, mais féconds, qui assombrissent un moment, tout

à nos yeux, dans le firmament, pour donner ensuite plus de clarté, et de fraîcheur à l'atmosphère et plus de force à la terre.

Donc, tous les petits et les grands événements de l'histoire humaine sont autant de rouages, rouages parfois invisibles, qui contribuent à la marche en avant du progrès et de la civilisation parmi les hommes.

Mais, de même que le sculpteur, quand il a dégrossi son bloc de marbre, quitte ses gros outils pour en employer de plus légers ; de même, le progrès, après avoir employé de grands moyens pour se frayer un chemin à travers les différents peuples, de même le progrès se sert de moyens moins violents et plus en rapport avec le travail qu'il se propose de faire, qui est de donner la dernière touche à son ouvrage, ou du moins de retoucher et de perfectionner peu à peu certaines parties de son ouvrage ; car, de même que toutes les parties d'une statue ne sont point destinées à recevoir la même finesse de touche, la même délicatesse de lignes et de courbes ; de même, toutes les nations, ne sont pas destinées à recevoir, la civilisation au même degré, car le monde ne saurait être seulement une grosse tête ; et il en est de même de chaque nation en particulier, dont tous les membres ne sauraient être destinés à recevoir la civilisation au même degré ; car, de même que le monde doit se former une vaste tête dirigeante, composée des plus hautes intelligences de chaque nation ; de même, dans chaque nation il doit se former un noyau d'êtres supérieurs venus des divers rangs de la société et chargés de diriger les autres membres de cette société, qui, par suite de leur nature même ou des circonstances de leur existence, ne sont point destinés à faire partie du noyau d'être supérieurs dont je viens de parler ; et à sujet, il y aurait bien des sages avertissements à donner au sujet de l'instruction obligatoire et à toute vapeur dont toutes les nations semblent être enfiévrées depuis un certain nombre d'années, détruisant ainsi, sans la moindre nécessité, leur vitalité même ; mais cette question de l'instruction en général est hors de mon sujet et je reviens donc aux moyens moins violents et plus délicats employés par le progrès pour donner une dernière touche à son œuvre, et parmi ces moyens, nul ne peut nier que les langues modernes n'en soient un des plus efficaces ; en effet, si l'on considère que le but suprême du progrès est avant tout de faire naître l'harmonie parmi les hommes, ou est forcé d'admettre que si les hommes sont appelés à s'entendre un jour ensemble et à marcher de concert, il faut évidemment qu'ils se comprennent et qu'ils se connaissent les uns les autres, de là naît l'importance, je dirai même,



la nécessité des langues modernes; car est-il rien de meilleur pour connaître un peuple que d'étudier sa langue, car qu'est-ce que la langue d'un peuple?—n'est-ce pas, en quelque sorte l'expression et l'épanouissement de la vie et de l'âme de ce peuple? et l'écrivain célèbre, qui a dit que "le style, c'est l'homme" eût pu dire aussi que la langue d'une nation, c'est la nation elle-même.

Déjà nous sommes arrivés à une époque où le nombre des personnes qui étudient les langues modernes augmente de jour en jour et les barrières qui séparent les hommes les uns des autres tendent de plus en plus à disparaître; les distances, les montagnes, les océans même, ne sont considérées à présent par les voyageurs que comme de bien faibles obstacles; de plus, les haines nationales, qui, souvent, sous le couvert d'un patriotisme exagéré, ont si longtemps séparé les hommes, ces haines nationales diminuent peu à peu d'intensité dans le cœur des hommes à larges idées; les guerres existent encore et sans doute elles ne disparaîtront que bien lentement; mais il est facile de voir que ce sont plutôt des guerres de cabinet à cabinet que des guerres de peuples contre peuples; ces guerres sont elles-mêmes sur leur déclin; l'arbitration prend et prendra de plus en plus leur place pour régler les différends entre les nations civilisées du globe; certes le patriotisme continue à exister et il existera toujours, il le faut pour l'harmonie du monde entier; car, quoique les nations soient appelées à vivre unies, elles devront cependant conserver leur individualité, leurs propres caractéristiques, comme les fleurs d'un bouquet conservent leur parfum particulier, quoiqu'elles soient réunies ensemble; d'ailleurs les différentes nations du globe ne seront jamais unies que comme le sont les différentes branches d'un même arbre, qui toutes puisent la vie aux mêmes sources et respirent le même air en restant cependant toujours un peu séparées les unes des autres.

Le patriotisme continuera donc à exister, mais il s'élargira et se débarrassera de ses sots préjugés; déjà maintenant les grandes nations civilisées comprennent de plus en plus qu'elles doivent se considérer comme de grandes familles, et les sentiments que les peuples éclairés éprouvent les uns pour les autres, ressemblent dans une certaine mesure, à ceux qui existent entre plusieurs familles vivant l'une à côté de l'autre, qui ont trouvé qu'après tout, il y a du bon dans toutes les familles, comme il y a du bon dans tous les individus, la seule difficulté est de bien vouloir l'admettre; c'est un sentiment si naturel à l'être humain que de penser qu'il est meilleur que les autres!

Mais avant que toutes les nations civilisées arrivent à avoir les unes pour les autres, cette sympathie naturelle, qui existe entre les différentes familles d'un pays, il faut qu'elles se connaissent mieux et le langage ou la parole sera le trait-d'union qui les réunira tôt ou tard.

Cependant quelle que soit l'importance des langues modernes pour tout le monde, il est certaines classes de la société qui sont tout particulièrement intéressées à cette étude, ce sont : les commerçants, les touristes et les étudiants.

Les avantages, pour les commerçants et pour les touristes, de connaître la langue des pays qu'ils désirent visiter pour leurs affaires ou pour leur plaisir, sont si évidents qu'ils sautent aux yeux de tout le monde et qu'il n'est pas nécessaire de les énumérer.

Mais c'est surtout pour les étudiants que l'étude des langues modernes est avantageuse, et, par étudiant, j'entends toute personne qui s'occupe d'un travail intellectuel, quel qu'il soit, sans pour cela être encore sur les bancs d'une université.

Nous savons tous qu'un des résultats les plus immédiats du progrès, c'est que grâce aux inventions sans nombre, grâce à la vapeur et à l'électricité en particulier, l'on travaille la matière première, la matière brute, en très peu de temps ; tout se fait plus vite qu'autrefois ; mais si l'on peut transformer les matières premières presque en un clin d'œil, les choses intellectuelles sont aussi traitées beaucoup plus vite qu'elles ne l'étaient autrefois, et grâce aux méthodes perfectionnées, à présent, les étudiants apprennent en quelques années ce que leurs prédécesseurs apprenaient en plusieurs années.

D'un autre côté, ceux qui enseignent la jeunesse et qui prennent intérêt à tout ce qui concerne l'instruction de la jeunesse, reconnaissent facilement que, de nos jours, les enfants et les jeunes personnes des dernières générations, non seulement connaissent plus de choses que ceux des générations qui les ont précédés, mais aussi, ils sont en général, plus aptes à recevoir l'instruction. Or, si l'on admet que, de nos jours, les étudiants ont l'esprit plus prompt et, en général, sont capables de recevoir une somme de connaissances plus grande que leurs prédécesseurs ils doivent trouver étroit et insuffisant le champ des connaissances parcouru par les étudiants d'autrefois, et il faut agrandir, pour eux, le champ parcouru par ces derniers, ou, du moins, ils devront étudier, plus à fond, les mêmes sujets que leurs aînés n'étudiaient que superficiellement. C'est pourquoi, de nos jours, les étudiants, désireux d'élargir

l'horizon de leurs connaissances, ne peuvent plus se contenter d'une étude superficielle des littératures étrangères ou des travaux scientifiques des autres pays, mais au contraire, ils sentent le désir et le besoin de les étudier aussi à fond que les ouvrages de leur propre pays et ainsi, grâce à l'étude des langues modernes qui leur facilite ce travail, les étudiants se trouvent en contact direct avec les sommités littéraires du monde entier et ils sont bientôt récompensés de leurs études, ces dernières étant pour eux une source de grandes jouissances intellectuelles; car, tous les grands savants modernes reconnaissent que la littérature moderne de tous les pays civilisés, contient de véritables trésors d'informations utiles et intéressantes au plus haut degré, qui étaient complètement inconnues aux anciens, malgré les beautés incontestables de leurs littératures; en effet, si l'on trouve, par exemple, en lisant les auteurs anciens, des lois admirables de sagesse, dans leurs écrits, des traités remarquables sur la vie de famille, l'éducation de la jeunesse et aussi sur la patience pour endurer les souffrances; en un mot, si la lecture des auteurs anciens est capable de répandre dans le cœur de l'homme, d'y infiltrer des sentiments de sagesse, d'honneur et de dignité, des sentiments d'amitié mutuelle et d'affection filiale; on doit lire la littérature moderne, pour connaître et apprendre à aimer des sentiments, qui, du temps des anciens, n'étaient qu'à l'état d'embryon; je veux parler de la liberté et de la sympathie "pour tous." Certes, les anciens connaissaient la liberté et ont même écrit de belles pages sur ce sujet, mais leur liberté était étroite et égoïste, ils ne désiraient pas la voir universelle, comme nous, nous le désirons; chez eux, on pouvait compter les hommes libres et les esclaves étaient innombrables, leur liberté n'était que l'ombre de la liberté et; leur sympathie ressemblait à leur liberté; ils connaissaient ce beau sentiment et ont aussi écrit de belles pages à ce sujet, mais, en général, leur sympathie ne s'étendait point au delà de leurs parents et amis; c'était une sympathie étroite et limitée, qui n'embrassait que quelques êtres humains et non toute la grande famille humaine entière; le Christ n'était pas encore venu enseigner aux hommes ce beau sentiment divin que nous appelons la Charité, laissant derrière lui, un rayon de sympathie universelle qui va en s'élargissant de jour en jour et embrasera un jour le monde entier; en un mot, la sympathie des anciens était naturelle et conséquemment limitée; la nôtre a quelque chose de divin, elle est surnaturelle et a quelque chose d'illimité et d'infini.

Certes, bien avant le Christ, certains auteurs avaient pressenti

ce beau sentiment et avaient dit aux hommes d'aimer leur prochain et de ne point faire aux autres ce qu'ils ne voudraient pas qu'on leur fit, en ajoutant même que ce précepte était le résumé de tous les devoirs de l'homme ici-bas ; mais ces pensées sublimes n'avaient été que des éclairs dans la pensée de quelques grands philosophes de l'antiquité, qui n'avaient point produit l'embrasement général et la sympathie universelle que nous devons au Christianisme, qui est surtout venu nous enseigner à détruire en nous l'égoïsme, ce cancer moral de la société.

L'étude des langues modernes n'est donc pas seulement d'une grande importance pour les étudiants au point de vue intellectuel, en élargissant le champ de leurs connaissances ; elle est aussi et surtout d'une importance considérable au point de vue moral, puisqu'elle leur élargit le cœur ; et, en effet, outre la somme de vastes connaissances nouvelles que l'on puise à la lecture des auteurs modernes, on y sent aussi un sentiment humanitaire plus grand ; les écrivains modernes ne font peut-être plus planer notre esprit à des hauteurs aussi élevées que ceux des époques précédentes, pour nous faire admirer et aimer ce qui est beau ; mais, par leurs descriptions des misères humaines de toutes les sortes, ils y attirent notre attention et nous intéressent davantage à tout ce qui touche à l'humanité et, ainsi, nous apprennent à trouver beau et à aimer, ce qui est utile et surtout ce qui est bon ; augmentant ainsi notre sympathie pour les autres, en nous faisant désirer soulager tous ceux qui souffrent.

Les étudiants, grâce à l'étude des langues modernes, se trouvent donc en contact direct avec les véritables pionniers de la civilisation du monde entier et par civilisation, j'entends cette lumière qui, en éclairant les esprits, rapproche par une action invisible, tous les peuples, les uns vers les autres, afin d'infiltrer dans le cœur de tous, une douce harmonie ; comme le soleil rapproche vers lui tous les astres qui l'entourent, pour les éclairer et y faire pénétrer une douce chaleur.

Mais cette douce harmonie, le fruit d'une civilisation vraiment intelligente, n'existera que le jour où tous les savants, tous les grands esprits du monde entier, s'uniront, en quelque sorte, ensemble par la pensée et ne formeront plus qu'une seule tête, qui, à sa suite, entraînera facilement le reste du genre humain dans des voies plus justes, plus rationnelles, en un mot, dans des voies plus vraiment intelligentes encore que celles que suit l'humanité, de nos jours ; mais pour que nous puissions voir naître des améliorations et des

perfectionnements qui aient une portée et des effets vraiment efficaces sur la grande société humaine tout entière, il faut qu'il y ait d'abord union dans la tête même de la société humaine, et, le jour où tous les grands esprits du monde entier, à l'instar des grands dépositaires des richesses matérielles, réuniront leurs richesses intellectuelles et ne formeront plus qu'une seule tête, pensante et dirigeante, les masses suivront cette tête et l'humanité entière entrera dans une nouvelle phase, l'humanité entière aura mué, si je puis m'exprimer ainsi, et sera entrée dans sa voie véritable.

Déjà, grâce à l'étude des langues modernes, qui met en communication plus directe les grands esprits et les grands cœurs, il existe des sociétés littéraires et savantes, internationales ; mais plus les langues modernes seront étudiées et intelligemment étudiées, plus ces sociétés prendront de l'expansion et plus elles auront de l'influence ; car plus les grands écrivains du monde entier seront connus, plus l'égoïsme individuel et l'égoïsme national diminueront : remarquez bien que je ne parle pas de l'amour-propre individuel bien compris, ni de l'amour-propre national intelligemment compris ; ces deux sentiments sont essentiels au progrès même des individus et des nations et sont comme le levier du progrès individuel et national ; je parle de l'égoïsme individuel et de l'égoïsme national, ces deux vers rongeurs qu'il faut détruire avant tout, car ce sont eux les deux plus terribles ennemis de l'humanité, ce sont eux qui s'opposent et s'opposeront, hélas, encore longtemps, au rapprochement des individus et des nations ; or, précisément, les langues modernes, par leur harmonieuse influence, tendent en quelque sorte à déraciner l'égoïsme national.

En effet, il est assez naturel que ceux qui n'ont lu et ne connaissent que les grands auteurs de leur propre pays et n'ont devant les yeux que leurs chefs-d'œuvre, il est assez naturel, dis-je, que ces gens-là aient une tendance, bien compréhensible d'ailleurs à estimer ces chefs-d'œuvre outre mesure, à les surestimer, au détriment de ceux nations, vu que ces gens-là n'ont point eu l'occasion d'apprécier ces derniers ouvrages ; mais, ceux qui ont une connaissance assez étendue des littératures de toutes les nations civilisées ne sont point si portés à priser exclusivement les écrivains de leur propre nation ; ils estiment et admirent toutes les grandes œuvres de l'esprit humain quelle que soit la nationalité de leur auteur, et ainsi, naturellement, ils perdent un peu de cet égoïsme national dont je parlais tout à l'heure ; car ils comprennent alors qu'aucune nation n'a le monopole du génie, mais qu'au contraire, chaque

nation a ses génies caractéristiques, comme chaque homme a son individualité particulière et chaque fleur son parfum spécial, et ces étudiants et ces savants, à mesure qu'ils avancent dans l'étude de la littérature des pays qui leur sont étrangers, comprennent que, quelle que soit l'importance d'une nation, que cette importance soit, sous le rapport commercial ou sous le rapport scientifique ou littéraire, ces étudiants et ces savants comprennent bientôt, que toutes les nations jouent un rôle plus ou moins important dans la marche du progrès universel, de la même manière (ainsi que je le disais au commencement de cette conférence), de la même manière, que dans une vaste machine, toutes les roues, quelles que petites qu'elles soient, contribuent au mouvement de cette machine.

• Donc, je répéterai, pour résumer, que l'étude des langues modernes est tout particulièrement utile aux touristes, aux commerçants et aux étudiants, car, tous en retirent de grands avantages au point de vue matériel, intellectuel et moral, et conséquemment les langues modernes peuvent être considérées, à juste titre, comme étant, de nos jours surtout, un facteur important dans la civilisation du genre humain et comme un facteur qui devient de plus en plus important, vu que le nombre des personnes qui lisent, pensent et réfléchissent, augmente tous les jours de plus en plus, et c'est par la pensée que tous les grands problèmes de la société humaine se résolvent.

## ARTHUR WING PINERO.

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In treating of the drama and the playwrights of to-day, it must be borne in mind that the contemporary dramatist works under conditions essentially different from those of the classic periods either of Greece or of the time of Elizabeth. Just as in the days of Sophocles, so in the time of Shakespeare, the dramatist dealt largely with stories and legends familiar to the intelligent part of his audience. Any school-boy knows that most of the tales involved in Shakespeare's plays were previously in circulation as novels or histories or as traditional theatrical subjects, which the playwrights of the time had handled over and over again.

In those days originality in a dramatist was measured by the individuality, eloquence and insight which he was able to impart to a well-known tale. During the past three hundred years there has been evolved the *original dramatist*—who, on the first night of one of his plays, is supposed to supply his audience with something novel; to treat them to some surprises. That originality in the playwright is by no means a necessity to the general public, is shown by the fact that the dramatization of popular novels was never more frequent than it is at present, and the hack worker who adapts plays to-day may legitimately claim to be a direct, though degenerate, descendant of the Elizabethan dramatist.

Among the Elizabethans, Ben Jonson was almost alone in desiring to create an original drama which should mirror the life of his own city and his own time. The Restoration comedy writers, and the makers of the artificial comedy of the eighteenth century, though they might claim to lash the vices of the time by mirroring the life of the upper class of society, dealt in fixed types, and there was little that was original with them except their wit. Even Sheridan and Goldsmith, who could lay claim to some originality in devising situations, dealt largely with characters and incidents that had grown familiar to the play-goers of their time. It is only in the nineteenth century that the original dramatist who makes his own tales, who writes from a thesis, comes definitely into view. He appears first in France, where the drama attains greater importance than the novel. Instead of taking his

play from a novel, the man with a tale to tell casts it in dramatic form first and later turns it into the novel. In France also, in the nineteenth century, the dramatic form was perfected. Looseness of construction had been canonized in England because Shakespeare and his comrades, who worked during the early period in the evolution of the modern drama, had put their plays together loosely. But the influence of the French theatre, with its school of experimental dramatists, seeking to embody definite ideas and to picture contemporary life in a compact and logical dramatic form, spread over Europe, into Germany and into Spain, and into Scandinavia, where it had an amazingly brilliant development. England also was conquered in part, although the banality of the English drama of the early Victorian era had gradually divorced the theatre from the support and interest of the intellectual classes—an influence which during the past decade it has been gradually regaining.

If there is any man in England who may boast of having helped to regain for the drama of to-day the co-operation of the intellectual classes, it is the subject of this essay, Arthur Wing Pinero.

For its actual life and permanent utility the theatre demands of the contemporary dramatist a continued supply of intellectual, moving plays. Just as the Irish famine depopulated Ireland, the blight which fell upon the English drama during the larger part of the nineteenth century caused the intellectual classes to emigrate from the playhouse. The result was that the new dramatists springing up, who had to earn their bread and butter, were forced to write down to the audience which remained to them. I think it was the discovery by the intellectual aristocracy that in Scandinavia there was a writer who was doing brilliantly poetic and philosophic work in the dramatic form, that re-awakened interest in the theatre. The outcry was raised that the amusement-seeking democracy should not have the play-house all to themselves. Whatever may be the general verdict on Ibsen, it is certain that he had added immensely to the prestige of dramatists everywhere. When this awakening took place some twelve or thirteen years ago, there was a critic ready to lead the van in the person of Mr. William Archer, who had long, like John the Baptist, been crying in the wilderness; an actor who was not afraid to experiment in the person of Mr. John Hare, to whom the modern theatre owes a very great debt; and a popular dramatist at hand who was



anxious to do something more than merely amuse people, in the person of Mr. Arthur Wing Pinero.

The son of a London barrister, of Portuguese descent, Pinero had in early life deserted law for the stage. A competent but not a very moving actor, his ambitions sought another channel, and he became a writer of agreeable farces, marked in a degree unusual on the English stage by light and graceful dialogue and happy touches of characterization. From the first, Pinero had shown himself a careful student of French models, and it has been charged by critics that the Comedie Francaise might more justly than the English theatre claim him as her son. In one of his later comedies, "Trelawny of the Wells," Mr. Pinero has in his character of Tom Wrench, founded on the well-known author of "Caste" Tom Robertson, inferentially acknowledged a debt to that dramatist, in that he had taught audiences to listen to characters on the stage who spoke as men and women do in real life. Pinero had at the outset the prime requirement of the worker in any branch of literature: he writes well. A Frenchman, a bitter detractor of the dramatist, has admitted this: "I will not deny Pinero's one quality, but I shall not be made to recognize that so far he has shown any others. His dialogue is nimble, precise, and carries thought swiftly. His language is undoubtedly the best spoken to-day by any English playwright."

Pinero's career as a serious dramatist properly begins with "The Profligate," a tragedy which he wrote as early as 1887, when the intellectual yeast was just beginning to work on the English stage. Mr. John Hare, more daring than the most English managers, offered at once to produce it, but reserved it for the opening of his new Garrick Theatre, so that it was April, 1899 before it was made known to the public. To quote Mr. Pinero's editor, Mr. Malcolm C. Salaman, "The pessimists (as to the future of the theatre) regarded it at least as an oasis in the desert of our modern drama, while the optimists hailed it as the herald of a bright new era of English dramatic literature."

Mr. Pinero has done work so much better than "The Profligate" since that time, that the praise lavished on it then would seem excessive now. But thirteen years ago the contemporary English drama was so absolutely insipid that anything in the way of strong meat for men was received with immense relish. The play deals with a particularly unscrupulous rake, Dunstan Renshaw, who weds a convent girl much his junior. She has an implicit

belief in his goodness which fills him with remorse. During the honeymoon a girl who has been made Renshaw's victim by a peculiarly mean and disgraceful trick crosses their path. Revelation comes to the bride in a manner splendidly effective from a theatrical standpoint. The young wife, her dream destroyed, resolves to leave Renshaw for good; and the husband resorts to suicide. In the ending originally planned by Mr. Pinero, and the one he adheres to in the published book of the play, Renshaw, who has taken poison, dies just as his wife, in forgiveness, returns to him with the words, "I will be your wife, not your judge," and takes him in her arms. In the acted version, insisted upon by the actor for the sake of expediency, a happy ending was devised by having the wife arrive in time to snatch the draught of poison from his hand.

I am disposed to think that the judgment of the actor who insisted on the latter ending was sound. There is in the reading of "The Profligate" nothing that seems to make a tragedy inevitable; the suicide of Renshaw in the published version occurs merely as an incident, and the chance that is given by the acted version to the pair to begin life over again with a better understanding of each other is satisfactory from all points of view. The defect of "The Profligate" lies for the most part in its high flown language, quite uncharacteristic of the later Pinero; and a certain strain and unnaturalness in the characters. Renshaw's past conduct, as shown, is too hopelessly despicable to make one think him capable of sudden redemption. His wife's innocence is too supremely idyllic for the latter end of the nineteenth century. Nevertheless the play as a serious dramatic study, with a well woven plot and a finely sustained interest, deserved much of the praise uttered when it was produced. A noteworthy feature of "The Profligate" is that it contains one of the earliest of the series of elderly cynics who make up for their ill-records by a latitudinarian mode of thought. This was Lord Dangars, the role played by Mr. John Hare, and he has since then figured under various names, Cayley Drummle, the Duke of St. Olpherts, and so on, until he reached his highest dramatic significance two or three years ago as the titular personage in "The Gay Lord Quex."

I am going to skip over the activities of several seasons to speak of "The Second Mrs. Tanqueray," so far Mr. Pinero's most successful play, and one doubtless known to many of you, inasmuch as it follows along constructive lines similar to those of "The Profligate." In all the elements that constitute a well-made modern

drama it is supremely good. The development of the story is clear, direct and strong; the tragic interest holds one by its intensity; incident grows from character and environment with the most fascinating art. I shall not weary you with discussions as to whether or not Pinero had a right to treat such a character as Paula Ray; more than to state that whether or not she be an elevating personage, Mr. Pinero's treatment of her has been in the highest degree chaste. A poor woman caught in the mesh of her petty wilful sins of to-day, and her greater sins of yesterday,—that spring up like dragons' teeth,—a wonderfully feminine figure, always at her worst when she should be at her best, Paula is a uniquely pathetic creation. It is to be borne in mind that Pinero in this play has discarded the chief theatrical resource of the other dramatists who treat such characters. You, perhaps, have seen a dozen plays in which the "lady with a past" gains her chief dramatic significance by a pervading element of suspense, the fear that her sins will be revealed to her husband. "The Second Mrs. Tanqueray" is possessed by no such quality, for her career is known to her husband. The unhappiness of her life lies far deeper; in the utter inability of a woman trained as she has been, to adapt herself to her new conditions in life as the wife of a country gentleman with a puritanical daughter. The catastrophe, when it does come, the discovery that the daughter's *fiancé* is an old companion of her own; the horror of the thought that her life is but to be a series of similar episodes constantly recurring; the realization that her beauty and charm are all that bind her to her husband and that they will soon be gone, leads her to suicide. Nor does Pinero show this as the work of impulse: it is rather the work of fate; something inevitable, just as the suicide of Renshaw was the contrary. The last act, in which he deliberately follows the methods of dramatic exposition used by the tragic poets of Greece, is one of the best ever written for any stage, and is, perhaps, the only really conclusive and wholly satisfactory last act that Pinero has ever written.

It is a lamentable fact, especially in his serious plays, that the dramatist is almost always inconclusive in his endings. This is especially so of "The Notorious Mrs. Ebbsmith," written immediately after "The Second Mrs. Tanqueray." It is at once Pinero's finest and his weakest play; only the genius of Mrs. Patrick Campbell, which made the earlier piece famous, has kept it on the stage. It might be called a noble failure. Certainly a

more striking character than Mad Agnes or one more typical of the present epoch was not given to the stage in the nineteenth century. She is a woman of thirty-three, sprung from the lower strata; the daughter of a mob leader; the child of an unhappy home; the victim of an unhappy marriage. Accustomed from her youth to seeing the poverty of the toiling masses, she has become a socialist of the extreme type. All human institutions are meet for destruction in her eyes; yet she is a woman of great talent and eloquence, high ideals and purity of intention. The latest sorrow that comes into this woman's life, the one that furnishes the theme of the play, is the attachment she forms for Lucas Cleeve, a selfish young aesthete whom she has nursed back to life. A man of rare personal gifts, inspired by a certain type of literary humanitarianism, he is separated but not divorced from his wife. Past experience having destroyed Mrs. Ebbsmith's belief in marriage, she forms a companionship with him. By his side she dreams of reforming the world; but disillusionment comes when she finds that it is only the feminine lures common to many women that he loves, and that he cares not a straw for the cause of humanity. Her ideal destroyed, she feels that she cannot let him go, and consents for a while to take off her dun-colored dowdy gown and prink herself out in gorgeous garb. Recollect that she is such an idealist that she has emancipated herself from the woman's proverbial love of dress. The horror of her situation as nothing more than the man's paramour comes over her and she leaves him, and he is almost mad with the loss of her. In a large attempt at cynicism, Mr. Pinero has shown the wife of Lucas Cleeve, who for various reasons does not wish to see his career wrecked, pleading with Mrs. Ebbsmith to return to him. She consents for a moment, but the wife realizing the iniquity of her proposal refuses to accept the sacrifice; Cleeve goes his way and the reader feels pretty well assured that it will not take him long to recover. Agnes on her part goes away to a little country rectory with a woman friend, to learn to live a saner and purer life.

In treating the later and dramatic portion of his narrative, Mr. Pinero's art has been infirm in the extreme; at the end of the third act he has attempted to symbolize the woman's sudden resolve to change her life by having her throw a Bible into the fire and then burn her hand by impulsively pulling it out again. The symbolism is lost in the mere melodramatic banality of the

episode. But the manner in which he has built up the figure of Mrs. Ebbsmith, "a moral woman leading an immoral life," as one of his characters calls her, is in the highest degree moving and effective. This play in fact typifies Mr. Pinero's temperament; he is a philosopher but not a poet. I do not mean the word poet in the narrow sense of "the maker or inventor of a metrical composition." I mean a man like Ibsen or Bjornson, or even like George Bernard Shaw, who on a sudden is able to illumine the mind as with a burst of light. And it seems to me that "The Notorious Mrs. Ebbsmith" called for a poet to work out her destinies.

With the exception of "Iris," Mr. Pinero's latest play, which I cannot discuss, these are Mr. Pinero's three most serious dramas; but in the past fourteen years, the years of his most important activities, he has written many charming plays of a lighter character and has displayed the utmost versatility and resource. In October, 1891, he was able by a change in the copyright law to commence the publication of his plays without sacrificing the royalties on their theatrical performance. The first thin volume he issued was "The Times." This was a colloquial sketch of contemporary London, in which the social and political foibles of the day were deftly treated. The comedy, however, has the arbitrary development of a farce, but its main figure of Percy Bompas, M.P., the draper who has risen in the world, is really effective and after the manner of Molière.

In a totally different vein is the domestic play "Lady Bountiful," which Mr. Pinero produced immediately before "The Second Mrs. Tanqueray." On the programme, when it was produced by Mr. Hare, were these lines:

"My masters will you hear a simple tale,  
No war, no lust, not a commandment broke  
By sir or madam,—but a history  
To make a rhyme to speed a young maid's hour."

In this play you are in the atmosphere of the novelists who wrote during the middle of the nineteenth century; there is pathos, comedy, and much genuine human nature. With a happier ending it would have lasted on the stage as long as "Caste," a piece which it resembles in general tone.

A charmingly fantastic little comedy, "The Amazons," was also the product of the five years between 1890 and 1895. As is apt to be the case with Mr. Pinero, the conclusion is tame. Three girls

who have been reared as boys are the main figures, and the story tells how two of them fall in love and decide to become girls in practise as well as reality. The tale, which is suggestive in some sense of "Love's Labour Lost," and "The Princess," has a poetic background and is told in a smart modern way.

From 1895 to 1900 Mr. Pinero produced four comedies, every one of which enjoyed a considerable measure of success. In "The Benefit of the Doubt," the first of the series, he took up what might be called a topical situation, namely, a divorce case in high life, such as the readers of English newspapers are regaled with frequently, but his handling of the subject was discreet. There is one act in it almost as clever as the famous third act of "The Gay Lord Quex." The end is, however, inconclusive, and Mr. Pinero, just as he solves matters for Mrs. Ebbsmith by sending her to a country rectory, despatches the foolish wife who is the chief figure of this play, to stay with her uncle, who is a bishop, for six months, during which her respectability will be officially restored,

"The Princess and the Butterfly" met with almost universal praise, because of its freshness and unique quality. It is on a definite theme, "Love is Ever Young," for which Mr. Pinero was indebted to a comedy, "The Mouse," by the French dramatist Edward Pailleron, one of the most delightful little plays I have ever seen acted. Mr. Pinero dealt with new materials, however, and satirized the blase elements of London Society while maintaining a strong note of romance. In the end the middle-aged butterfly takes a tricky damsel less than half his age for his bride, and the princess, a comely widow of thirty-eight, weds an oldish young man ten years her junior. Following the conventions of the Shakespearian comedy, Mr. Pinero mates off most of his characters at the fall of the curtain.

In "Trelawny of the Wells," a play less serious in intention than anything he has written of late years, Mr. Pinero reverts to his early life as an actor, and the majority of his characters are stage folk inimitably drawn. Though the piece as a whole is fragile its first act is a little masterpiece of character portrayal.

"The Gay Lord Quex" is the last and most widely discussed of his comedies. Perhaps the finest dramatic incident in any of his plays is the sudden transition of feeling in Lord Quex which forms the climax to the third act. It is the essence of what constitutes good dramatic art—a fine emotional crisis naturally developed from the very hearts of the characters. Though the characters

may be generally described as a "bad lot," there is as much optimism as pessimism in "The Gay Lord Quex," for the motive force of the chief scene is the generous impulse which transforms the impulses of the two main figures. Again one finds an insipid last act, the radical defect of some of the dramatist's finest efforts.

In what I fear has been a tedious *resumé*, I have sketched the plays which represent Mr. Pinero's chief activities. If he goes on writing for another ten years we may expect even finer things from him, for he is in the prime of his artistic career. I have not called him a great dramatist; for he is not a poet and does not soar. But he is a supremely clever, witty, and observant writer, who displays the true dramatic instinct in setting forth his subject. The sketch I have given will serve to exonerate him from the charge I have seen made that he has but half a dozen characters all chosen from the stage of the Comedie Francaise. The reading of his published works will also demonstrate that another charge, namely, that he can only depict women, and that his men are mere ciphers, is nonsense. His style is above all things terse, clear, and rapid. Inferior in power of imagination to some of his contemporaries even on the English stage, Messrs. George Bernard Shaw Oscar Wilde and Henry Arthur Jones, he has a much keener gift for characterization than the latter two and makes greater allowances for the comparative stupidity of a mixed audience than Mr. Shaw, who it has been said is argumentative even in his stage directions. The charge is frequently made by upholders of an intellectual theatre that Mr. Pinero is a commercial playwright; but it is because he is such that he has been an influence in elevating the intellectual tone of the modern English drama. He has been able to serve as a mediator between the two opposing camps of the intellectual aristocracy and amusement seeking democracy. He has not escaped censure from the pot-house moralists, who appear to hold that on the modern stage intellectual elevation is moral degradation. But probably he smarts more under the taunts of those advanced souls who complain that he has not made the theatre a school of original thought. The French dramatist Curel has recently said, however, that "the essential primordial law of the theatre is thought through emotion." This essential law, which makes emotion paramount, Mr. Pinero has unfailingly observed.

## THE PLAYS OF PAUL HERVIEU.

F. J. A. DAVIDSON, M.A., PH.D.

M. Hervieu is the author of five plays, which bear the following dates and titles:

*Les Paroles restent*, 1892.

*Les Tenaïlles*, 1895.

*La Loi de l'homme*, 1897.

*La Course du flambeau*, 1901.

*L'Énigme*, 1901.

His début was at the Théâtre du Vaudeville, but the success of his first play opened to him the stage of the Comédie Française, where the two succeeding pieces were presented. With *La Course du flambeau* he reverts to the Vaudeville, pending the reconstruction of the Français after the disastrous fire, and with *L'Énigme* he returns to the national theatre of France.

If we had only the first play of this author before us we might ascribe to him an originality all his own, independent of any source, and indebted to his time only for the setting and subject of his drama. At the outset of his dramatic career the critics were unanimous in characterizing his talent as original and even singular, not to say unique. His success was heightened by the novelty of his subject. In *Les Paroles restent* he has made a tragedy of which gossip is the mainspring and the hero. I know of no other play based so entirely on this motif, and I know of no author, in novel or in drama, who has been so successful in subordinating the element of love, which nearly all literature in these two genres teaches us to regard as the paramount human interest. Nay, I should except one surpassing genius, Balzac, who had the profaning power to substitute the god of money in the shrine of love. And let me assert here, though I find my opinion corroborated by no critic—indeed, French critics do not always trouble themselves about sources—that Balzac is beyond doubt one of the literary ancestors of Hervieu in his realism of objective observation, no less than in his inability at times to suppress his own *ego*, in his characters, moved each by some single dominant passion, even in his style, *qui choquait les habitudes prises*, and the merits of which were contested till the critics understood that a new message needed a new language, and recognition, at first withheld, was



forced. Let me quote from the classic and reactionary Brunetière, in his review of *Les Tenailles*, *Revue des Deux Mondes*, 1895, p. 953 :

"Il y a des défauts qui n'en sont plus dès qu'ils sont, je ne dis pas la rançon ou l'envers, mais la condition de certaines qualités—et tel est bien le cas de ceux que l'on reprenait chez M. Paul Hervieu. Si l'on a pu s'y tromper jadis, nous ne craignons plus que l'on s'y méprenne après le succès des *Tenailles*, et nous nous en réjouissons pour l'auteur, mais encore plus pour nous, et pour l'art."

We need not be surprised to learn that charitable friends attempted to deter Hervieu from the dramatic career. They told him that his play, plunging as it does *in medias res*, neglected the rule that "*le théâtre est l'art des préparations*." They complained of his rudeness of attack and his too vigorous touch. "Ce style solide et contourné," says Larroumet (*Revue de Paris*, 1897, p. 139), "d'un relief métallique et coupant, paraissait à beaucoup le contraire d'un style de théâtre." We may rejoice that the author did not sacrifice his originality upon the altar of this well-meaning but stupid friendship.

*Les Paroles restent* shows us a society of idlers, *blasés*, *ennuyés*, finding their chief interest in the *flirts* of the members of their set and in destroying, if possible, the reputation of the women concerned. One woman, Régine de Vesles, is *dépaysée* in this atmosphere of virulent gossip, but is unable to escape its poison. She moves along, unwittingly, with her reputation in ruins about her. Nohan, indiscreet author of the scandal, atones by his remorse and love, and their passion, elevated by her nobleness and purified by suffering, is about to attain consummation when malicious gossip, envious of so chaste a union, destroys the lover's life. "*Les paroles restent—et elles tuent*" is the climax of the play.

I repeat, the play is original, it is even disturbing in its originality. We may imagine resemblances to other authors; thus Régine recalls Renée Mauperin; the Comte de Liguell might be a Don Ruy Gomez toggged out in modern clothes; Lady Bristol is the typical English silhouette of French literature. But, amid doubts, certain features stand out clearly. The play is logical; it is lacking in *hors d'œuvre*; it is a play with a purpose; that purpose is a moral one, and in spite of the oddity of the subject that purpose is clear—it is a defence of marriage, or rather an attack upon conditions that mar the married state. We need not seek further for the immediate ancestry of Hervieu. Dumas *fils* is his parent, perhaps

with a collateral descent from Augier ; but Dumas  *fils* , the initiator of the modern play, with its direct observation of life, its rapidity of dialogue, its logic and simplicity of means, lives again in Hervieu, and with a more complete reincarnation, in that Hervieu adopts also the morality of purpose which Dumas had transmitted to no previous heir. If any doubt remains it is dispelled by *Les Tenaïlles*. Never did Dumas advance a problem with more boldness or in clearer terms. With *Les Tenaïlles*, too, the manner of Hervieu, a little uncertain yet in *Les Paroles restent*, is fixed. In the latter play there are some accessory rôles ; there is, as in Dumas, an effort to please. But in *Les Tenaïlles* we have the acme of restraint, of sobriety. There are only the actors indispensable to the plot. Five characters suffice for the discussion of a moral and social problem, for the tragic exposition of a duel between two wills. This struggle between two wills, hedged in by the law, which is a fortress for one, a prison for the other, and exasperated on the one hand by selfishness, on the other by suffering, such is the theme of *Les Tenaïlles*, a theme which is to be repeated, with variations, in *La Loi de l'homme* and *l'Énigme*. We face the problem in the opening speeches of the two women of the play :

PAULINE. Enfin, qu'est-ce que tu reproches à ton mari ?

IRÈNE, *avec force*. Je lui en veux de ne pas l'aimer.

It is a thunderbolt hurled at the legal violation of marriage, à la Dumas  *fils*  ; but the subtler nature of the problem bears witness to the passage of Bourget and the feminism of modern France, while the realism of the chief characters, dramatically foreshortened each to a single dominant passion, is stamped with the influence of Balzac and his successors. Fergan, with his passion for mastery and being always in the right, and Irène, with her enthusiasm for the ideal, represent the opposing poles of an irremediable incompatibility. It is but natural that she should find in another that happiness hitherto denied her ; natural, too, that the consequences of this fatal union should wreck the lives of both in inevitable tragedy. I know of no more tragic climax than the end of *Les Tenaïlles*. Irène, to keep her son with her, confesses to Fergan that he is not the father of her child. The husband's pride is broken ; he demands the divorce which he formerly refused to grant. But Irène, in her turn, refuses. " Je ne l'accepte plus. Ma jeunesse est passée, mes espérances sont abolies, mon avenir de femme est mort." " Alors, qu'est-ce que vous voulez que je devienne, ainsi,

face à face avec vous, toujours, toujours ? Quelle existence voulez-vous que je mène ?” “ Nous sommes rivés au même boulet. Mettez-vous enfin à en sentir le poids et à le tirer aussi. Il y a assez longtemps que je le traîne toute seule.”

I have said that the subject of *Les Tenailles* is also that of *La Loi de l'homme* ; but it is here still more tragic and more painful. A woman, deceived by her husband, is unable to find in the law the means whereby to prove her grievance, though in a like case of fault on the part of the wife the husband would be amply protected. She must content herself with a separation *à l'amiable*, which leaves her her daughter but takes her fortune. The purpose of the play is to show the iniquity of the law, and it is well shown. The logic of the situation leads to an inevitable dénouement and an equally inevitable *quod erat demonstrandum*. The faithless husband keeps his mistress ; the abandoned wife brings up her daughter. But the mistress has a son born in honorable wedlock, and during a visit of Isabelle to her father the two young people meet and love. To prevent this marriage, which appears to her in the light of an unnatural union, and one which delivers her daughter into the hands of her enemies, Mme. de Raguais reveals the infidelity of her spouse. D'Orcieu, the husband of Raguais's mistress, after the first spasm of rage and despair, insists on saving appearances from the wreck of honor, and decrees that Mme. de Raguais shall return to her consort, as he himself will continue to live with his faithless wife. Thus is the heroine doubly a victim, and must take up her heavy burden and bear it in agony and without resignation to the end. The triumph of the young lovers, rising flower-like from this morass of immorality, only serves by contrast to emphasize the ruin of their parents' happiness.

But so truly are we the children of our works, in literature as well as in character, that the episode which ends so dramatically *La Loi de l'homme* becomes the germ of the next play, to my mind the greatest the author has yet produced. The sacrifice of parents to children is the subject of *La Course du flambeau*. Here again Hervieu has distinguished himself, as in *Les Paroles restent*, by the originality of his theme, and by the power to maintain its interest at the expense of the ever-recurring topic of love. The reference of the title is to the *λαμπαδοφορίαι* of the Greeks, in which citizens in relays ran and transmitted one to the other a torch kindled at the altar of the divinity whose feast they celebrated. “ Chaque concurrent courait, sans un regard en arrière, n'ayant pour but que

de préserver la flamme qu'il allait pourtant remettre aussitôt à un autre. Et alors dessaisi, arrêté, ne voyant plus qu'au loin la fuite de l'étoilement sacré, il l'escortait, du moins, par les yeux, de toute son anxiété impuissante, de tous ses vœux superflus. On a reconnu dans cette Course du flambeau l'image même des générations de la vie." But Hervieu is impartial. This is evidently his own view but he shows us the reverse of the medal in the reply of Sabine to the speech just quoted: "Je ne conçois pas ainsi les relations de famille. À mon point de vue recevoir la vie engage autant que la donner. . . . Puisque la nature n'a pas permis aux enfants de se fabriquer tout seuls, je dis, moi, qu'elle a donc eu l'intention de leur imposer une dette envers ceux qui les mettent au monde." These views form the motives for action of the principal characters of the play, who are more numerous than is usual with Hervieu. Mme. Fontenais's thought is all for Sabine; Sabine's for Marie-Jeanne; Marie-Jeanne's for her husband; childless as she is, he is to her *et mari et enfant*. At the supreme moment of choice, Sabine kills her mother for her child, who in turns abandons her without hesitation.

There is something of the fatalism of the old Greek play about this piece; yet not the fate predestined by the gods, external and superior to humanity, but a fate inherent in human nature, and all the more terrible in that it does not relieve its victims of responsibility. The subject is simply treated, logically developed towards the final catastrophe; nothing is superfluous, though the number of interests involved has led to greater length than usual. There is in this play *un grand souffle de tragédie*, which sweeps everything before it, even our preconceived notions of the duties of parents and children, and leaves us convinced, for the moment at least, of the truth of the author's thesis.

While *La Course du flambeau* is long and somewhat difficult of analysis, *L'Énigme*, the final play in the series, is the very essence of brevity and conciseness. There are but two acts; the plot is extremely simple, the style clear-cut and devoid of ornament. The play opens in the hunting-lodge of the two brothers, Raymond and Gérard de Gourgirán, where they are sojourning with their wives, Giselle and Léonore, the Marquis de Neste, their cousin, and Vivarce, a friend. Neste, left alone with Vivarce, shows him that he is aware of the latter's intrigue with one of the wives, which one he does not know. They are alike in manner, calm and undisturbed. Their husbands are equally serene in their conjugal bliss,

in which, however, there is little of the ideal; their natures being rather coarse than subtle, characterized by a devotion to sport and to the careless, frivolous life which their social position makes possible. Vivarce denies at first, but to no purpose. Neste seeks to dissuade him from continuing the intrigue. But it is not a commonplace *liaison*, it is a *grande passion*.

A general conversation, later in the evening, *à propos* of a *fait divers* in the newspaper, reveals to us the views on the violation of marriage of the different actors in this drama. Raymond thinks that deception deserves death; his sense of property seems the dominant trait in his character, and he would slay the thief of his wife's affection as he would the poacher trespassing on his preserves. Giselle and Léonore think the punishment too severe. Gérard would spare the erring wife, but slay the traitor. Vivarce agrees with him. Neste preaches forgiveness of human frailty.

Subsequently Vivarce is discovered and suicides. Léonore, whose lover he was, betrays herself by her emotion. Gérard is true to his theory. "Je ne te tuera pas! . . . Je ne te chasse pas non plus. Je te garde pour te forcer à vivre!" Can we say that the deeper enigma is solved when Gérard declares that "Ce sont les hommes de notre espèce qui, à travers les temps, assurent le règne du mariage, en veillant sur lui, les armes à la main, comme sur une majesté," and when Neste, in the closing words of the play, retorts: "C'est par nous autres, amis fervents et respectueux de la vie, c'est par nous, pêcheurs, qui, dans la créature, soutenons notre sœur de faiblesse, c'est par nous que finira pourtant le règne de Caïn."

I have already indicated some of the sources from which I consider Hervieu to derive; but his talent is too complex thus summarily to be dismissed. Throughout his works, novels as well as dramas, we see the evidences of an erudition which modesty only partially conceals. One is sure that he has carefully studied not only the great masters of seventeenth century France, but also that antiquity from which they drew their early inspiration. His dramatic style may truly be called classic in its purity and simplicity, as well as in its geometric logic of construction. In his novels, such as *Flirt*, *L'Exorcisée*, *L'Armature*, this solidity is disguised by a mystic subtlety of analysis which belongs at once to the psychologist and to the symbolist, recalls Bourget and Maeterlinck. But the drama, compelling brevity and clearness, has caused the author to abandon all oddity of phrase. By his irony, and the

tenderness we feel beneath it, by his voluntary logic and his mastery of the stage, he places himself in the direct line of descent from the elder Corneille, with whose situations, indeed, his own are sometimes strikingly parallel. His plays do not present merely individual adventures, but such as have far-reaching social significance.

We may, I think, divide his dramas into two groups: the first, in direct continuation of Dumas *fil*s, consisting of *Les Tenaill*es, *La Loi de l'homme* and *L'Énigme*, whose manifest purpose is a general defence of the rights of woman; and the second, more original in subject, but perhaps less so in style, comprising *Les Paroles restent* and *La Course du flambeau*.

M. Hervieu is barely forty, and he has attained already, in novel and in drama, a sure and honorable position in the history of French literature. Though it is too soon to risk a final judgment, we feel that his plays will live, because they represent, above and beyond their local and temporal atmosphere, general characters and universal problems, whose importance is as lasting as the human race itself.

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*THE EXAMINATIONS IN FRENCH AND GERMAN FROM  
THE ASSOCIATE-EXAMINER'S STANDPOINT.*

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As all teachers are, or hope to be, associate-examiners, this subject will be treated rather from the standpoint of the former. My purpose is to show that the examination might be made of more value to the student, and at the same time render the teacher's work more agreeable. I wish to say at the outset, that in criticizing the examinations I do not attach any blame to the examiners who prepare the papers. For many years I have been of the opinion the examination has not been all that it might be, and has not exerted so great an influence for good as is desirable, and my experience as an associate-examiner has strengthened and confirmed this opinion. Having been chairman of the Junior Leaving Section for the past two years, I am in a position to know that a large percentage of the candidates is not well prepared, obtaining less than 50% of the marks assigned to the papers; and I may here add that I think the knowledge required to make from 33% to 50% is neither so extensive nor so accurate as it should be. In fact many of the candidates were marked as high as 50% who made no attempt to translate the passage to be taken at sight. Many others obtained from 80% to 85% of the marks given for the selections from the prescribed works who failed to get 30% of the sight passage correct.

Last summer I called Mr. Pakenham's attention to this. He agreed with me that this should not be, and requested me to ascertain the views of the other associate-examiners in my Section, embody these views in a series of suggestions to the Educational Council, and to place them in his hands, to be laid before that Council for consideration. In conversation with some of my colleagues, I was told that the same question was being discussed by the Senior Leaving associate-examiners. It was suggested by Dr. Horning, the chairman of that Section, that a joint meeting of

the two sections, together with any other examiners interested in teaching French and German, should be held to discuss the question and to agree upon the suggestions to be made. Accordingly a meeting was called, and after several had expressed their views, a committee was appointed to prepare a list of suggestions to be fully discussed at a subsequent meeting, at which the character of the examinations was unanimously condemned as being an insufficient test of the knowledge of these languages that a student have on leaving school. The following suggestions were agreed upon, not because they were considered entirely satisfactory, but because it was thought that the Council would not consent to more radical changes at the present.

1. That the paper in Composition should be based on the prose selections prescribed to be read during the year, as to vocabulary, thought and idiom.

2. That the paper in Authors, etc., should consist, as at present, of three parts; selections from the texts prescribed, questions in formal grammar, passages for sight translation, and that the following values should be assigned to the parts respectively, 30, 20, 50.

3. That the passages for sight translation should be similar to the prescribed work in idiom and vocabulary and of equal difficulty.

4. That these suggestions should be forwarded to the Board of Examiners, and that the Modern Language teachers in our High Schools should be notified of the changes.

These changes were to apply equally to the Junior Leaving and Senior Leaving examination papers.

What action was taken by the Council I cannot say, but I presume that there was none, for I, as chairman of the committee, have heard nothing from that body. The Council of this Section, however, thought it advisable to renew the discussion at this meeting. Now, as many will doubtless take part in the discussion, I shall be as brief as possible in giving my reasons for desiring a change in the character of the examinations in French and German.

There is probably no influence felt by the student in our schools so much as that exerted by examinations, and not only by the student is it felt; to such an extent does the examination influence the teacher that it very largely determines the character



of his teaching. For this reason, then, the examination should be made in as far as is possible, an influence for good, and not only permit but require the imparting of such knowledge as the student may reasonably be expected to possess on leaving school. The ability to pass the examination should be a guarantee that a careful and accurate study of a given amount of work has been made.

Whatever may be said of the schools in cities and large towns, I think I am well within the mark in asserting that at least 70 per cent. of the students in the smaller towns and villages attend school with the express purpose of becoming teachers, university students, or of entering upon a course of study in law, medicine, dentistry, etc.; and as the majority come from homes where the question of ways and means has to be carefully considered, it is to these students a matter of great importance to receive the desired certificate in as short a time as possible. The teacher is expected to waste no time in teaching anything that is not actually necessary for the purpose for which the student attends school, and as the teacher's reputation is founded rather upon the success of his candidates than on the influence he has in forming and developing their character, the temptation to cram is hard to be resisted. Many a teacher has been forcibly reminded that if he wishes to retain his position he must be fully alive to the interests of the school, that is, making it popular and enabling the trustees to point with pride to its excellent record. It is well known that many are more interested in seeing their children pass the examination than in knowing that they have received a training which really fits them to enter the Model School, etc. The result of this is that too many of our students leave us with a very superficial knowledge.

Is the ability to pass the examination in French and German any evidence that the student has spent a sufficient time in the study of them to attain a fair degree of proficiency? I answer no, for it is possible for a young man or young woman of average mental endowments, with not more than ordinary application, to acquire the knowledge necessary to pass the Junior Leaving and even the Senior Leaving examination in one year or less. I have been called upon many times to give assistance to such, not because I encourage any to undertake the work, but because the students themselves desire it. Frequently have I been told by such students that they care nothing for the knowledge of the languages in itself, and will be

perfectly satisfied to learn just enough to make the examination work required. Perhaps it is as well that I should not give expression to the thoughts that arise in me on such occasions. To me it seems a farce such should be required of students; it would be better to strike the subject from the curriculum or compel the candidate to show that he possesses more knowledge than can be obtained in such a short time.

In this utilitarian age parents are apt to estimate a High School training from its commercial value. Now, it is not the purpose of our educational system, nor is it our duty as teachers, to prepare boys and girls to make a living; but if we combine with the formation of character and the development of the mental faculties the imparting of a knowledge that can be employed in making a living, we shall have done much to remove any prejudice that may exist against French and German. To accomplish this we must have sufficient time, and we should make our influence felt in the remodelling of the course of study. The average time required in the preparation for the Junior Leaving and Pass Matriculation examination is four years, and as less time is not enough, the student should begin the study of at least one of the modern languages on entering the High School. In many schools French is commenced in the second year and German in the third or sometimes the fourth. The examination should be of such a character as to secure an accurate knowledge of the work prescribed. The vocabulary contained in the prose selections read should be so thoroughly assimilated that the student recognizes it immediately wherever he comes in contact with it. How often we find candidates rendering correctly words in the selections from the prescribed work, and utterly failing to translate into English the same words in passages to be taken at sight. A thorough familiarity with the vocabulary is essential to reading and writing with readiness. It is one thing to recognize a word in a passage read in class two or more times, but an entirely different thing to be able to use it in giving expression to a thought in French or German. If time is given to the student to fully master the vocabulary or learn to think in these languages, his interest in the study will constantly increase; but to keep him at a continual grind of translating disconnected sentences from an exercise book, that interest is apt to diminish to the vanishing point, and he is glad to have just enough to serve his purpose, that is, to pass the examination; and, in the majority of cases, that is the end of the matter so far as that student is concerned.

In becoming acquainted with a people through their language—and this should be one of the features of our teaching—the mind is broadened, prejudices are removed, and the English student learns that his nation is but one of the units that go to make up the world, and that each of these has its own important work to perform. There is cultivated in him a respect for other peoples, even though he cannot always agree with the views they hold, and he further learns that there are many ways in which he may receive useful instruction from those who speak a foreign language. If our teaching produces this mental attitude in our students, we have not wasted our energies.

In my opinion, when a candidate presents himself for a Junior Leaving or Pass Matriculation certificate, he should have at ready command a vocabulary of at least 1500 words, and be able to recognize readily at sight 500 or 600 more. This would enable him to read the easier modern books and newspapers, and to express himself in writing with considerable ease and readiness, and, if he has also learned at this time, as he should, to recognize the words by sound and to pronounce them correctly, he will be in a position to carry on a conversation in French or German. The Senior Leaving candidate spends in school an additional year or two, and should possess a proportionately larger vocabulary, and the ability to give expression to his thoughts in both spoken and written language with a greater fluency.

Now turn to the examinations as they are at present, and see in how far they demand the quantity and quality of knowledge such as I have outlined. Take first the papers of 1901 in Composition, so-called. In French the paper is divided into three parts, the first consisting of sixteen sentences similar in idiom and vocabulary to those found in the High School Grammar. The vocabulary required is very meagre, containing not more than 500 or 600 words. Each of these sentences is valued at five marks, the whole paper at 150. One mark is deducted for ordinary errors, two for the graver. If the candidate does not lose more than thirty of the eighty marks assigned to this part of the paper he makes the necessary 33 per cent. The second part has four and a half lines, valued at twenty; the vocabulary is given, but it is necessary to show a knowledge of the forms and uses of the tenses of the verb, the arrangement of the words in the sentence, etc., a very important matter, I admit. The third part is made up of a number of

connected sentences, consisting of words with which the candidate should be familiar if he has carefully studied the exercises in his text-book. To make a high mark on this paper he does not require to have a vocabulary of more than one-third of what I have said he should possess. In the German paper there are but two parts, none of the vocabulary is given, yet it is almost as easy to make the pass mark. In the author's papers the value assigned to the selections from the prescribed work is so high that it is possible to make 60 per cent. or more without attempting the sight passages. This applies also to the Senior Leaving papers. I desire further to point out that there is a lack of uniformity in the assigning of marks; for example, in the Junior Leaving paper in French the selections from prescribed work are valued at 42 per cent., whereas in German the same are valued at 30 per cent.; in Grammar, the questions in French are valued at 25, in German 35. In the Senior Leaving Papers there are selections from the texts prescribed for Junior Leaving candidates, and others for Senior Leaving. In one case I find a higher value given to the former than to the latter. Would it not be well to ask that the examiners so set and value the papers that no advantage is given to either language?

I shall now briefly outline an examination that would in existing circumstances be possible, and would require a much more thorough and practical knowledge than is demanded at present, and would make the teacher's work more agreeable and add materially to the student's interest. The Composition paper should be divided into two parts, the first made up of a number of questions in French or German, to be answered by the candidate in the same language. These questions should be based upon the texts prescribed and should be a test of his having carefully studied them, and acquired a familiarity with the thought, idiom and vocabulary. The second part should be similar in form to the Composition paper in English, that is, a number of subjects should be given, the candidate making his choice therefrom. The length and style of the composition to be written should be in proportion to the degree of proficiency to which the candidate should have attained. The marking of these compositions should present no greater difficulties than those now experienced by the associate-examiners in English. In the author's paper there should be but two parts—questions in formal grammar, and passages to be taken at sight, which should be as nearly as possible similar to the texts prescribed in thought, idiom and vocabulary.

To make so great a change at once might do injustice to some now in course of preparation, but changes might be made gradually, until in four years at most this very desirable condition be attained, and the teaching of French and German placed on a much more advanced ground than at present, and so long as at least one of the modern languages is required for matriculation, the study of that language from the time the pupil enters the school be ensured. No longer would the teacher be subjected to the humiliation of being forced to assist a student in cramming for an examination.

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*ENGLISH GRAMMAR—ITS USE AND PLACE IN OUR  
SCHOOLS.*

J. P. HOAG, B.A., BRANTFORD C. I.

I. HISTORICAL SKETCH.

The conquest of England by the Norman French and the consequent degradation of the English language to the condition of a dialect, spoken by serfs and boors, brought into the English schools the study of the French and Latin languages.

Since Winchester was founded in the fourteenth century, Latin has been the chief, often the only, subject of study in English Grammar Schools. The Revival of Learning in the sixteenth century, of course, confirmed the use of Latin. Because of the attention given to Latin, the earliest English grammars were really mere translations of Latin accidence, intended to assist the student in mastering Latin. They were really not English grammars, in the true sense, at all. Dr. John Colet's "Introduction to Lily's Latin Grammar" was the first English grammar and the standard for centuries. The fact that the study of Latin grammar was intended to secure correctness in writing and speaking the language naturally gave rise to the idea that "Grammar is the art of speaking and writing a language with correctness"—an idea which seems to have been general until well into the present century. In fact most grammarians, from Quintilian in the first century to Sir Richard Steele in the eighteenth, gave the same definition. Mr. James Buchanan, in his "Regular English Syntax" (published 1767), gave the prevailing idea of the place of grammar when he said, "Young gentlemen ought daily to write two or more sentences. . . . Let them spell this exercise off, giving the rules for spelling; next the various significations of each word, as they find them in their dictionary; by which they will soon acquire a copious vocabulary, and become acquainted not with words only but with things themselves. Let them next give an account of the parts of speech one by one, and apply the rules of syntax in the construction. Lastly, let them resolve each sentence, supplying everywhere the ellipsis."

The treatment of grammar as an art naturally led to its subdivision into four parts: Orthography, dealing with letters, with

syllables and their combinations; Etymology, dealing with forms of words; Syntax, with sentence structure; and Prosody, with versification. Having inherited this definition of grammar as an art and this subdivision of the subject into four parts, we adopted the method of teaching our native tongue from the Latin. We proceeded on the theory that the only way to learn to use English correctly was to study the principles of English speech. Under Orthography were rules for spelling, to be learned by rote; under Syntax rules, to be fixed in the mind by correcting many examples of false syntax. The system was made still more wearisome by applying to English, an almost uninflected language, the rules of Latin, a highly inflected language.

Perhaps the most important book ever published on English grammar as an art was that of Lindley Murray, published in 1795. Murray's grammar was a compilation from its predecessors, its chief merit being its clearness. It laid great stress on parsing, which was not, however, introduced until nearly two hundred pages of etymology, etc., had been learned.

Kirkham, a successor, in a grammar published in 1823, imitated Murray, but introduced parsing almost at the outset. Kirkham recommended a new system of parsing, which he called "A New Systematic Order of Parsing." Under this scheme, the parsing of the words "John's hand trembles" occupies an entire page. The parsing of one word here will suffice:

"'Hand' is a noun, the name of a thing; common, the name of a sort or species of thing; neuter gender, it denotes a thing without sex; third person, spoken of; singular number, implies but one; and in the nominative case, it is the actor and subject of the verb *trembles* and governs it agreeably to Rule 3. The nominative case governs the verb, *i.e.*, the nominative case determines the number and person of the verb. Declined: Singular, Nom. hand, Poss. hand's, Obj. hand; plural, Nom. hands, Poss. hands', Obj. hands." Some teachers may at this day remember a method not unlike this, for it was not dead at least a quarter of a century ago.

One other reference to the methods of teaching grammar in the past; I mean the use of examples of False Syntax. Apparently Dr. Robert Lowth, in his "Short Introduction to English Grammar," published, 1767, originated the method. Dr. Lowth gives the usual definition of the purpose of grammar to teach the correct use of language, and then goes on to say: "But besides showing what is right, the matter may be further explained by pointing out what

is wrong." From this has grown all the abuses arising from an excessive use of false syntax in teaching grammar, until the admonition of the Committee of Ten on English Teaching became necessary—"Routine parsing should be avoided, and exercises in the correction of false syntax should be sparingly resorted to."

This historical sketch is based upon Mr. F. A. Barbour's "The Teaching of English Grammar," published by Ginn & Co., Boston, a most interesting and instructive little book.

## II. MODERN IDEAS OF GRAMMAR TEACHING.

Slowly more modern ideas in regard to the aim and purpose of grammar teaching have come to us. We now see that grammar is not so much an art as a science, and that, while the study of grammar does aid, to some extent, in gaining a correct use of the language, especially in writing, it is chiefly of value as a means of training the logical faculty. Orthography should be taught, but in connection with composition rather than with grammar. Etymology and syntax should be studied inductively from the sentence. Grammar is, now, recognized as a science, and a difficult science.

As a result of the idea that the study of grammar does not aid, to any very great extent, in acquiring the correct use of English, some have advocated the elimination of English grammar from our school curriculum. Indeed, it is stated that the State of Connecticut has dropped technical grammar from its curriculum in both Model and Normal Schools.

In opposition to this may be quoted the words of the Committee of Ten: "Grammar is the science of language, and as the first of the liberal arts it has long held sway in the school as the disciplinary study, *par excellence*. . . . Its chief objective advantage is that it shows the structure of the language and the logical forms of subject, predicate and modifier, thus revealing the essential nature of thought. . . . On the subjective or psychological side, grammar demonstrates its title to first place by its use as a discipline in subtle analysis, in logical division and classification, and in the art of questioning and in the mental accomplishment of making exact definitions."

Bain, Mill and Laurie hold similar views in regard to analysis being a logical study of the forms of thought, etc. Another value of grammatical analysis, besides that of training the logical faculty, is the power to interpret difficult passages in literature. Many



obscure and difficult passages may be interpreted by careful grammatical analysis. Of course the custom prevailing in earlier days of making noble literature simply a supply of available material for grammatical analysis is to be condemned.

I have already said that grammar is to be regarded as a science rather than an art, but the study of grammar does to some extent aid in the acquirement of ability to use the language correctly. This is especially the case in regard to those who have been trained under unfavorable circumstances and have incorrect habits in the use of language to overcome.

### III. THE PLACE OF GRAMMAR.

If grammar is a difficult and abstract science, what is its place in our Ontario schools? If it is of such great use in training the logical faculty, at what stage in the pupil's development can this faculty best be trained? In attempting to discuss these questions, I am perhaps entering on delicate ground. My own opinion, formed after some years' careful observation and practice in Public and High School work, is that the proper place for technical grammar is not in our Public Schools, nor even in the lower forms of our High Schools.

Our pupils come to us fresh from the High School Entrance Examinations, without the ability to compose, orally or in writing, with any degree of ease or rapidity. In many Public Schools composition is neglected, owing to the pressure of other work. How can this be avoided? Very easily, I think. Let us drop technical grammar in the Public Schools and abolish the High School Entrance Examination in English grammar; let us make composition, especially oral composition, more important, and let us teach the main essentials of English grammar incidentally as language lessons in connection with composition.

If grammar is a logical study, it requires on the part of the pupil some development and maturity. This comes largely with years. We cannot eliminate the factor time. Even if it is possible for the young child to do abstract reasoning with some difficulty, the older child can reason much more readily, and can, in such a subject as grammar, accomplish more in a few months than a young child can accomplish in many months. It seems to me, therefore, that our school system needs reversing, so far as English grammar is concerned. Instead of teaching grammar in the Public Schools and

the lower grades of High Schools, let us place it, where it properly belongs, along with higher mathematics in the upper forms of High Schools. In those forms the subject may be studied in a proper way, *i.e.*, historically and comparatively as well as descriptively, for senior pupils know the main facts of English history and at least one language, often two. Hence in those forms it becomes possible for us to make grammar teaching scientific, for older pupils soon learn to know that language is a living thing, and therefore has growth, development, even decay and death.

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*THE MILLENARY OF ALFRED THE GREAT.*

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In September last was celebrated in good old English style, in the royal city of Winchester, the thousandth anniversary of the death of England's hero, King Alfred the Great. The celebration itself was an event of no little interest, especially to visitors from this side of the Atlantic, where objects around which gather the associations of hoary antiquity are not so easily found. In the celebration, the notable dignitaries of Church, State, and higher learning were all combined; and an assembly more truly representative of Britain's best than was the civic banquet in the Guild Hall could not easily be found. The cities of the Kingdom were represented by their mayors, in collars of gold and supported by stalwart sword-bearers; the nobility, by marquis, earl and baron, with the insignia of their rank and honors; the Church, by the Archbishop of Canterbury, with bishops and deans; Oxford, Cambridge, Dublin, Edinburgh, Glasgow and Aberdeen, by vice-chancellors, masters and professors; while the ranks of literature, science and art were represented by names of world-wide reputation, and all combined to make an impression on the little band from the western world, including half a dozen Canadians, such as we receive and enjoy but once or twice in a generation. The historic monuments of the ancient city itself contributed not a little to the interest and impressiveness of the occasion. Oldest, we have the remains of Wolvesey Castle, first built by the Saxons, and a royal residence in the days of Alfred the Great; where was written and kept the Anglo-Saxon Chronicle, the first vernacular history of any Teutonic people; then rebuilt as a Norman castle by Henry of Blois, and finally destroyed by Cromwell in 1646. Next comes the ancient Norman castle, built by William the Conqueror, residence of the kings of England from the Conqueror to Henry the Eighth, in the great hall of which Parliament assembled for nearly four hundred years. Here on the wall hangs the round table of King Arthur, where it has remained for at least five hundred years. Underneath is a strangely-shaped orifice, behind which the King could sit and

listen to the debates in Parliament, the opening being so constructed as to collect and reinforce the sound.

Coeval with the castle of the Norman Conqueror is the great cathedral built by Bishop Walkelin. With the exception of Westminster Abbey, it is the richest of all the English churches in historic monuments. Its mortuary chests, placed on the top of the side screens of the choir, contain the bones of Saxon kings and bishops dating from 641 to 955. The later Saxon and Danish kings still rest in their graves within the cathedral.

The monuments of the cathedral turn our thoughts to William of Wykeham, England's greatest bishop architect, whose work on the cathedral pales before his beautiful colleges at Oxford, and here in Winchester itself.

Still older than Wykeham's College is the famous Hyde Abbey, in which the bones of King Alfred were re-buried. Of the old Abbey church nothing is now left above ground, and over the unknown grave of the great king we see growing the potatoes and cabbages of a humble peasant gardener.

Such are a very few of the historic places and associations of this royal city. Later, though to many not least, is the tomb of Izaak Walton, "prince of fishermen, sleeping near his beloved Itchen, which has renewed its fame in the lines of the later writer, who sings:

"Willows whiten, aspens quiver,  
Little breezes dusk and shiver  
Through the wave that runs forever  
By the island in the river  
Flowing down to Camelot."

In perhaps no other place can we find so much ancient fable, long past history, and modern poesy meeting as here.

But from the celebration and the city, with its historic and poetic associations, we must turn to the more useful study of the great historic epoch which we celebrate.

The reign of Alfred the Great is of such varied interest and importance that we could not even glance at its various aspects or give the most cursory summary of its events in the brief minutes at our command. We shall confine ourselves to two, directly related to our present gathering, and inseparably related to each other. These are its results in English literature and English education.

To understand what Alfred accomplished or projected for these two important interests of the nation, we must briefly review the

state of England in regard to education and literature when he began his work.

It is not necessary to revert to the ancient British learning and literary work, as that with the Saxon invasion had been driven out of England into Wales, Ireland and Scotland. It returned to England only to contribute some share to the Christianization and civilization of the Saxons. When once these had received the seeds of Christian light and learning from Roman Austin on the South, and from Celtic Aidan and Cuthbert on the North, they made such rapid progress in learning that in the next century they produced a number of the most noted scholarly names in Europe in that age, such as Theodore, Aldhelm, Bede, and Alcuin, whose influence has reached forward to our own day, and who in their own age helped largely to the revival of learning to the south of the Channel.

But this early Anglo-Saxon learning had two defects. First, it was confined entirely to the monasteries and to the priesthood. This was indeed a boon to the whole nation, but it needed something more. Again, its direct literary results were given out in the Latin tongue and not in the language of the people. That language was slowly forming itself, under the influence of natural forces without the aid of imitative literary polish, after the classic models of Greece and Rome. It, too, was creating not a literature but a traditional lore after the form of all primitive peoples and forming languages. Ballad, song, minstrelsy has been in all the ages the earliest form in which the knowledge of the past is preserved among the tribe or nation. Side by side with it is the traditional story. You cannot call either literature, for they are not written. They live not in books, scrolls or tablets, but in memory of living men. When they are committed to record by totem, hieroglyph or written words, they have changed their nature by steps which at the last stage have led up to literature, and begin to influence the growth of the language by an entirely new force. In the case of our Saxon forefathers, and still more in the case of the other new-born nations of Europe, this process was largely modified, and its final stage in some cases long delayed by the presence and use for all learning of a foreign ancient literary language, the language of the church, the schools, literature, philosophy, law and science. We have survivals of it to-day in the writing of medical prescriptions in Latin, as well as in the use of the Latin in the ritual of the Roman Catholic Church.

In the period which we are now studying, the English or Anglo-

Saxon people had been, up to a generation back, in touch with this ancient learning and literature, their heritage from Imperial Rome. In fact, they had been foremost of all Europe in its cultivation. It had been swept away from them by the Danish invasion, and men like Alfred, who, through his learned mother or stepmother, had not lost sight of it, were longing for its restoration.

And here appears the simple common sense greatness of King Alfred. He had himself sufficient learning to make him long for more. Through travel as far as Rome, and through the influence of an educated mother, his intellectual life had been awakened. The tradition of an age when the light of learning was still in the land was with him, making the present darkness more sensibly painful. We cannot describe his feelings better than in his own words, quoted from Alfred's preface to his translation of "Gregory's Pastoral Care": "I let it be known to thee that it has very often come into my mind, what wise men there formerly were throughout England, both of sacred and secular orders; and how happy times these were then throughout England; and how the kings who had power over the nation in those days obeyed God and His ministers; and they preserved peace, morality and order at home, and at the same time they enlarged their territory abroad; and how they prospered both with war and wisdom; and also the sacred orders, how zealous they were both in teaching and learning, and in all the services they owed to God; and how foreigners came to this land in search of wisdom and instruction, and how we now have to get teachers from abroad if we were to have them. So general was the decay in England that there were very few on this side of the Humber who could understand their rituals in English or translate a letter from Latin into English; and I believe there were not many beyond the Humber. There were so few of them that I cannot remember a single one south of the Thames when I came to the throne. . . . When I considered all this I remembered also how I saw in my own early days, before all had been ravaged and burnt, how the churches throughout the whole of England stood filled with treasures and books, and there were a great multitude of God's servants. But they had very little knowledge of the books, for they could not understand anything of them because they were not written in their own language. As if they had said, 'Our forefathers, who formerly held these places, loved wisdom, and through it they obtained wealth and bequeathed it to us. In this we can still see their tracks, but we cannot follow

them ; and therefore we have lost both the wealth and the wisdom, because we would not incline our hearts after their example.' When I remembered all this, I wondered extremely that the good and wise men who were formerly all over England and had perfectly learned all the books did not wish to translate into their own language. . . . Therefore it seems better to me, if ye think so, to translate some books which are most needful for all men to know into the language which we can all understand."

From this extract we learn the spirit and motives as well as the ideals of the man. Mourning over the loss and decay of the old learning, he found one cause of decay in the difficulty of an extra language. He saw clearly that if all learning involved the knowledge of Latin, such learning could never become the possession of all the people. To understand this fully we must again recall the intellectual conditions of that age. It was an age when little or no original work was being done in the intellectual field. The learning of the age was mainly historical and preceptive, *i.e.*, maxims or instructions for life. Such learning could be committed to books or to memory. The books were made by the laborious process of copying, and were few and expensive. They were preserved in the churches and monasteries. The schools were *scholæ*, the places of leisure, where the people gathered to hear the books read and expounded. The reader had a twofold task, first, to read and understand himself, and then to give forth that which he so collected in the tongue of the people for their understanding. The lector or reader thus stood between the people and the knowledge which the king desired for them. In Alfred's day the priests could read their Latin service books, but not one, he says, south of the Thames could understand or interpret them, and but very few in all England. To overcome this difficulty was his primary object, and his common sense told him that it could be more easily done by turning the needed books into English than by turning the great body of priests and monks into Latin scholars. In any case they must learn to read, *i.e.* to pronounce the words by the aid of written characters ; but they need not, in addition, master a new language. It is not probable that Alfred expected that all the people would learn to read, but he did expect that knowledge of the books would come within their reach through a sufficient number of readers in the vernacular. He therefore began his work by inviting to his kingdom, and entertaining in his royal household, men of learning. From Wales he secured Asser ; from Mercia, Wenefrith, Plegmund, Ethel-

stan and Werewulf; and from Gaul, Grimbald and John of Corbey. With their help he enlarged and perfected his own scholarship which had received very imperfect attention in his younger days. He next prepared books for the instruction of all the people. One of these, "The Pastoral Care of St. Gregory," was intended for the edification and instruction of the priesthood. The translation of "Bede's Ecclesiastical History" not only served the same purpose, but also helped to make the people at large acquainted with the history of their own country. The work of Orosius served a like purpose for the world's history and geography as then known. The Dialogues or Tales of Gregory formed a lighter literature for the young people, and the Consolations of Philosophy, recast in a more thoroughly Christian dress, furnished a book of wisdom for the more mature. At the same time he codified the laws of the land in the language of the people, carefully extending them where really needed. In the most of this work he himself had so large a part as to be really the author, and to impress his personal character and style upon the whole. Another most important vernacular work, "The Anglo-Saxon Chronicle," was largely wrought through his fellow-workmen, but under his direction and inspiration. Of another, perhaps the most notable of any, we are not so certain. This was the translation of the Gospels and Psalms into the vernacular. Of this only portions were completed, but even the beginning of such a movement indicates the importance and depth of Alfred's work.

Before considering this work as the foundation of English Literature, we may complete our view of Alfred's educational work by a brief reference to his rebuilding, endowment and strengthening of the monasteries. The monasteries were at this date both the schools and the publishing houses of the Christian world. Here the priest and the layman were educated for the higher duties of Church and State; and here books were multiplied and scattered abroad. Here, too, the people received instruction from hearing the books read, though this was, perhaps, still more largely accomplished in the churches. Hence Alfred says, in sending a copy of the "Pastoral Care" to each bishop: "I would have you set all the youth now in England of free men who are rich enough to be able to devote themselves to it, to learn, as long as they are not old enough for other occupations, until they are well able to read English writing. And let those be afterwards taught more in the Latin language who are to continue learning and be promoted to a higher



rank." From this passage it is clear that Alfred projected a much wider education of the people through the schools in English than was possible when Latin was the only vehicle of learning. The schools of Alfred were thus the monasteries and the churches, and although Huber says that "at the end of the ninth century Oxford was the seat of a school of the highest intellectual cultivation then existing," we must set aside the tradition of his being the founder of Oxford University. But at the same time we may well recognize the fact that when, two hundred years (1133) later, university life began at Oxford in such a course of teaching or disputations as had already been established at Bologna and Paris, and thus directly laid the foundations of the present University, it found the place for work in the monastery, and thus founded upon foundations which Alfred had either laid or reconstructed. Broader still lay the whole educational policy and work of Alfred beneath the entire intellectual life of the English-speaking people. In his religious spirit, in his intellectual tastes, in his desire for the education of all his people, as well as in the simple common sense and directness of the methods which he employed for his purpose, he was far in advance of his age. Prof. Earle ventures what we think to be the very just judgment that to his work "it is due that we alone of all European nations have a fine vernacular literature in the ninth, tenth and eleventh centuries. And the domestic culture of that era was the cause why the great French immigration which followed in the wake of the Norman Conquest did not finally swamp the English language."

This leads us directly to a brief glance at the writings of Alfred as the beginning of English literature. Prof. Earle's note calls our attention to the fact that the English was the first vernacular literature of modern Europe, dating back with Alfred to the ninth century. We have seen one cause of that in the universal use of Latin as the common language of learning and literature. The more closely related the vernacular was to the Latin, the longer was the Latin likely to hold its own against the forming vernacular. The first form of vernacular literature was thus not, speaking literally, literature, *i.e.*, it was not written, but recited, and the Saxons possessed this as well as the Celts, Norse, Germans, Franks and Goths. The ballad or minstrel poem was also naturally the earliest form of written work in the vernacular, as witness the *Nibelungen Lied* among the Germans at the end of the twelfth century, the *Chanson*

de Roland of the eleventh century in France, the *Trovatori* of the fifteenth century in Italy and the *Cid* in Spain just before 1200. The vernacular tongues of France, Germany, Spain and Italy thus all appear in their first literary dress from 1050 to 1250, and each in the form of poetry, in three out of the four, heroic. The Anglo-Saxon works which correspond to this are the works of *Cædmon*, about 670, and *Beowulf*, about 900. The former sprang out of the first Anglo-Saxon learning awakened by the first touch of the Christian faith, and the latter out of the revival under Alfred. The latest antedates the earliest vernacular literature of continental Europe by one hundred and fifty years, and the first carries us back nearly two hundred and fifty more. Such is the preëminence of English literature, and such the intellectual energy of the period with which we have been dealing.

But the literary status and power of any language is determined not by its poetry but by its prose, and true literary prose is, as we have seen, a later development. Alfred's literary work was prose, and in this lies its preëminent value in its influence upon the growing language. It is only when the language begins to be bent to the literary forms of good prose that the beautifying and corrective influence of literature upon a language fully appears. Men do not attempt to speak in poetry, but they do attempt to imitate good prose. It may be objected that Alfred's prose was, after all, but a translation, and hence an imitation of Latin prose. This is only in part true. Both in the *Orosius* and in the *Boethius* there are lengthy sections of entirely original matter, and in the latter, parts of the translation are so free as to be truly original composition. Even in the parts most literally translated the mould of the Latin form was no disadvantage to a tongue now for the first time being reduced to written forms of prose. But after we allow for this, Alfred's individuality and force of character were such as to impart, even to his translations, a healthy English stamp and character. His English directness of speech has nothing in common with the rhetoric of Cicero or Livy. It is simple, plain, forceful, common-sense speech, the words keeping pace with the thought and carrying it smoothly and rapidly forward.

But the literary work of Alfred is important not only in itself but also as the beginning of an Anglo-Saxon age of authorship extending right down to the Norman Conquest, and in full vigor. This literature includes successive codes of laws, various historical chronicles, poetry, and ecclesiastical and homiletic literature. Thus when

the blow came by the irruption of the Normans, the Norman French, as yet an unformed and illiterate vernacular, whose literary work was still all done in Latin, was opposed, not to a rude speech like itself, but to a language of considerable literary development and power, much in advance of the invading tongue. Into the story of the conflict of races and languages and their final emergence, after three centuries, in the modern English, we cannot enter. Suffice it to say that the old Anglo-Saxon speech bravely held its own, and is still to-day the glory of our mother tongue, thanks to the good and wise and pious King Alfred.

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*ROBERT LOUIS STEVENSON.*

O. J. STEVENSON, M.A., ST. THOMAS.

During the past six or seven years few men in the world of letters have been more spoken of and written of than Robert Louis Stevenson. If we seek for the causes of his pre-eminence, we will find that they lie partly in the picturesqueness of his personal career, partly in the fascination of his personality, and partly in the excellence of his literary style. These three elements of his popularity must accordingly be considered separately, if we are to attempt to form an estimate of his work and fix his place in the literature of the century.

The details of his personal career are connected almost entirely with the great misfortune of his life, hereditary ill-health. He was born in Edinburgh in 1850, where his parents continued to reside for nearly forty years, till the death of his father in 1887.

He always continued to look back with a certain fondness to the calling of his father and grandfather before him, who were engineers engaged in the improvement of the lighthouses—"the great sea lights," as he calls them. To his mother's side of the house, the Balfours, a family of ministers, he no doubt owed much of his passion for literature and his intellectual bias.

Ill-health in his childhood interrupted school and University life alike, but was not an unmixed misfortune, for his expeditions on the continent and in his own country in search of health gave him his first glimpses of a wider world, and fed from the first his love of travel and adventure.

After leaving the Public School, Stevenson entered the University and commenced the course of study for a civil engineer. The ruling passion of his life, however, was the ambition to be a writer, and in a short time he entirely gave up the idea of becoming an engineer. In deference to the wishes of his father, however, he began the study of law, and in 1875 was called to the Bar.

He did not practise his profession, however, and the greater part of the next four years were passed in the south of France in search of health. During these four years he continued to work assiduously at his chosen profession, literature, making himself master of the minutest details of the craft, and in 1878 we find him making

a beginning in authorship in his first publication, "An Inland Voyage."

In the meantime he was making friends. In 1874 he had been introduced by Leslie Stephen to a poor, unfortunate poet who was lying ill in the Edinburgh Infirmary. The poet was W. E. Henley, and from that day a mutual friendship sprang up between the two. Shortly after this, at a friend's house, he met with Sidney Colvin, the record of whose friendship with Stevenson is found in the "Vailima Letters."

In 1879, while staying in the south of France, Stevenson met with Mrs. Osborne, an American lady who had come to Europe with her young son and daughter for the sake of their education. Between Stevenson and Mrs. Osborne a mutual attachment sprang up; but there were difficulties in the way of their marriage. Mrs. Osborne, though separated from her husband, had not secured a divorce from him, and in order to take the necessary legal course, returned to California the following year. Some time after her return to San Francisco, Stevenson heard that she was ill, and, acting on an impulse, without consulting parents or friends, he started for America. It is unnecessary to follow him through the various stages of the expedition, his long voyage and tedious journey, his illness, and his sojourn in a Mexican ranching village, his return to San Francisco, his loneliness, poverty and illness—until finally, in 1880, the divorce was secured and the marriage took place.

After their marriage Stevenson and his wife lived for some months in a deserted mining station in the California Coast range, in the hope that improved health would follow.

At first, on hearing of his son's escapade, Stevenson's father was displeased, but it was not long before his feelings changed, and he settled £150 per year on him. In 1880, he and his wife were welcomed back to Scotland, but ill-health made a settled life impossible, and the next five years were spent for the most part in various expeditions in search of the ever-coveted treasure. It is difficult to form an idea of the actual struggle that Stevenson went through during these years. Attack followed attack, and hemorrhage followed hemorrhage. Time after time his life was despaired of, but he bore up against the overwhelming odds with a patience and a cheerfulness that were the wonder of his friends. "My case is a sport," he once wrote on a slip of paper when forbidden to speak; "I may die to-night, or I may live till sixty."

These five years were, however, in one sense the most eventful in Stevenson's life, for they were marked by the first real successes in his literary career. In 1882, "Treasure Island," which, in his own phraseology, was intended "to fetch the kids," was published, and succeeded in fetching not only the children but the world of older people as well. Stevenson took his first popular success modestly. "This gives one strange thoughts of how very bad the common run of books must be," he wrote to his mother, "and generally all the books that the wiseacres think too bad to print, are the very ones that bring me praise and pudding."

"Treasure Island" was followed soon after by "The Black Arrow" and "Prince Otto," and in 1885 appeared his first volume of poems, "A Child's Garden of Verse." From 1885 to 1887 he lived in England at Bournemouth, in a residence called Skerryvore, presented to him by his father. It is interesting to note among the names of his Bournemouth friends that of Sir Percy Shelley, the son of the famous poet. Though Stevenson was almost entirely confined to his house during these three years, they were, nevertheless, years of unremitting labor. The two chief Bournemouth productions are "Dr. Jekyll and Mr. Hyde," and "Kidnapped," both of which achieved an immediate success.

It might be interesting to note, in passing, the circumstances under which "Dr. Jekyll and Mr. Hyde" was written. Stevenson had for some time had in mind the subject of the duality of man's nature, and the alternation of good and evil in the same character, but his idea had never taken final shape. One night his wife heard him exclaiming aloud in his sleep and wakened him. "What did you waken me for?" he said. "I was dreaming a fine bogey tale." The next day he set to work to put his dream into words, and in three days had produced the first draft of "Dr. Jekyll and Mr. Hyde." As he was at this time recovering from a hemorrhage he was not permitted to leave his bed or to hold conversation with anyone. His wife, following her usual custom, wrote out her comments on the story on paper and gave them to him. The comments were not wholly favorable, and a few minutes later when she returned she found him sitting up in bed with the clinical thermometer in his mouth, pointing to the ashes in the fire-place. He had burnt the first draft entirely, so that he might not be in danger of being affected by its faults. In another three days he had produced a second draft, but it was a month or six weeks before it took its final form. The story was immediately popular,

and a quarter of a million copies were sold in the United States alone.

In 1887 Stevenson's father died, and shortly afterwards the Bournemouth residence was given up, and the family sailed for America to try a change of climate. The winter of 1887-88 was spent in the Adirondacks, near the Canadian border, and during this winter "The Master of Ballantrae" was undertaken.

In the following spring he was taken strongly with the idea that a long sea voyage might benefit his health. The McClure Magazine Company made him an offer of \$10,000 for a series of articles descriptive of the South Seas—an offer which he accepted. In the spring of 1888 he set out from San Francisco in the yacht *Casco*, and the next three years were almost entirely spent on the sea.

In spite of illness, these three years were among the most enjoyable of Stevenson's life. He writes, in the course of one of his voyages: "This climate; these voyagings; these landfalls at dawn; new islands peeking from the morning bank; new forested harbors; new passing alarms of squalls and surf; new interests of gentle natives—the whole tale of my life is better to me than any poem."

Stevenson's love for the sea was little less than a passion—an inherited passion, as he himself puts it.

"I will never leave the sea, I think; it is only there that a Briton lives. My poor grandfather, it is from him that I inherit the taste, I fancy; and he was round many islands in his day; but I, please God, shall beat him at that before the recall is sounded. . . . Life is far better than people dream who fall asleep among the chimney-stacks and telegraph wires."

And later on, speaking of his grandfather, "It was that old gentleman's blood," he says, "that brought me to Samoa."

We will not attempt to follow him in detail in the course of these cruises. Suffice it to say that in 1889, finding his health in general improved, he decided to make a permanent winter home for himself in one of the South Sea Islands. The Samoan group was chosen because it lay in the direct route of the mail steamships; and in 1889 he purchased a bush estate, some four hundred acres in extent, in the hill country, six hundred feet above the sea, three miles from the town of Apia. The same summer he planned to return to Scotland on a visit, but a fresh attack of illness caused him to give up the idea and to go on another long cruise instead.

The next five years were spent almost entirely on his Vailima estate, and altogether these were five happy years. His time was divided between clearing his land, building his house, writing, correspondence, and making occasional horseback visits to the town. The record of this five years is to be found in his correspondence with Sidney Colvin, published under the title of "Vailima Letters."

During this period, although he was free from hemorrhages, there is no doubt that his constitution gradually weakened. In the course of time, too, he became embroiled in Island politics, and suffered continued fatigue and worry, which his constitution, never robust, could not endure.

"For fourteen years," he writes during this period, "I have not had a day's real health. I have wakened sick and gone to bed weary; and I have done my work unflinchingly. I have written in bed, and written out of it; written in hemorrhages, written in sickness: written torn by coughing, written when my head swam for weakness; and for so long, it seems to me I have won my wager and recovered my glove. I am better now; have been, rightly speaking, since first I came to the Pacific; and still, few are the days when I am not in some physical distress. And the battle goes on—ill or well, is a trifle, so as it goes. I was made for a contest, and the Powers have so willed that my battlefield should be this dingy, inglorious one of the bed and the physic bottle."

"That he was more or less aware of the imminence of death, during the last few weeks of his life," says Colvin, "we may gather from the tenor of some of his letters. On the last day of his life, December 3rd, 1894, after a morning of happy work and pleasant correspondence, he was seen gazing long and wistfully at the mountain summit, which he had chosen to be his burial-place. Towards the evening of the same day he was talking gaily with his wife and trying to reassure her under the sense of coming calamity which oppressed her, when the sudden rupture of a blood-vessel in the brain laid him, almost in a moment, unconscious at her feet, and before two hours were over he had passed away."

The funeral took place the following day—a funeral to which, taking into account the character of the man and the circumstances of his struggle, as well as the actual character of the burial, the fine description of Browning's "Grammarians' Funeral" might well apply. We quote the following from Mr. Lloyd Osbourne's account of the funeral:



"A meeting of the chiefs was held to appropriate the work and divide the men into parties. Forty were sent with knives and axes to cut a path up the steep face of the mountain, and the writer himself led another party to the summit—men chosen from the immediate family—to dig the grave on a spot where it was Mr. Stevenson's wish that he should lie. Nothing more picturesque can be imagined than the narrow ledge that forms the summit of Vaea, a place no wider than a room and flat as a table. On either side the land descends precipitously; in front lies the vast ocean and the surf-swept reefs; to the right and left green mountains rise, densely covered with the primeval forest. Two hundred years ago the eyes of another man turned toward that same peak of Vaea, as the spot that should ultimately receive his war-worn body—Soalu, a famous chief.

"At one o'clock a body of powerful Samoans bore away the coffin, hid beneath a tattered red ensign that had flown above his vessel in many a remote corner of the South Seas. A path, so steep and rugged, taxed their strength to the utmost, for not only was the journey difficult in itself, but the extremest care was requisite to carry the coffin shoulder-high."

Over his grave a large tomb was placed, composed, Samoan-fashion, of great blocks of cement—on one panel of which is inscribed his own requiem, composed nearly twenty years before :

"Under the wide and starry sky  
Dig the grave and let me lie;  
Glad did I live and gladly die,  
And I lay me down with a will.

"This be the verse you grave for me,  
Here he lies where he longed to be,  
Home is the sailor, home from the sea,  
And the hunter home from the hill."

The personal appearance of Stevenson is so generally well known that little description is required. In height he was about five feet ten. He was exceedingly slender and thin, but so graceful in movement that he was seldom taken for a Scotchman. He was mistaken for a Frenchman more often than anything else. "I have found out what is wrong with me," he remarked at last, "I look like a Pole." His complexion was deep brown, his eyes of the same color, and set wide apart. His hair was dark, and was worn long for fear of his catching cold—although in the South

Seas, when that danger was past, it was cut short. His voice was full and rich, of surprising strength and resonance, and he spoke with a pronounced Scottish intonation.

The description of Stevenson by W. E. Henley, is generally well known, but is well worth repeating :

“Thin-legged, thin-chested, slight unspeakably,  
Neat-footed and weak-fingered : in his face—  
Lean, large-boned, curved of beak, and touched with race,  
Bold-lipped, rich-tinted, mutable as the sea,  
The brown eyes radiant with vivacity—  
There shines a brilliant and romantic grace,  
A spirit intense and rare, with trace on trace  
Of passion, impudence, and energy.  
Valiant in velvet, light in ragged luck,  
Most vain, most generous, sternly critical,  
Buffoon and poet, lover and sensualist,  
A deal of Ariel, just a streak of Puck,  
Much Antony, of Hamlet most of all,  
And something of the Shorter Catechist.”

In personal life Stevenson appears to have been of a most lovable disposition. The charm of his character lay, no doubt, in his own appreciation of the beauty and joy of life. He was one of those dispositions who never grow old.

To the world at large, however, to those who did not come into immediate personal contact with him, the most attractive feature of his character is the inspiring example which he set to the world, of courage under difficulties, of unremitting labor, and unflinching perseverance against overwhelming odds, and of a never-failing cheerfulness through years of toil and conflict that would have tried the spirits of the most courageous.

“Since I am sworn to lead my life,  
And not to keep an easy heart,  
Some men may sit and drink apart—  
I bear a banner in the strife.

“Some can take quiet thought to wife ;  
I am all day at *tierce* and *carte*,  
Since I am sworn to lead my life,  
And not to keep an easy heart.

“I follow gaily to the fife,  
Leave Wisdom bowed above a chart,  
And Prudence brawling in the mart,  
And dare Misfortune to the knife,  
Since I am sworn to lead my life.”

Such is the spirit of the man,—never perhaps more admirably expressed than in his own brief summing up in the little passage entitled “A Task”:

“To be honest, to be kind, to earn a little, to spend less; to make upon the whole a family happier by his presence; to renounce where that shall be necessary, and not to be embittered; to keep a few friends, but these without capitulation; above all, on the same grim conditions to keep friends with himself,—here is a task for all that a man has of fortitude and delicacy.”

There are some men whose position in the world of letters it is difficult for us to estimate, because the influence of their individual personality enters so strongly into the popular estimate of their work. For example, in the last half century the essays of Charles Lamb have lost a great deal of their interest, with the passing of the individuals and institutions which they describe; but the love and affection which the pathos of his personal life and the traits of his personal character inspired, dies hard, and when we think of Lamb it is not so much to recall the admirable passages in his works as to consider the loveliness of his disposition.

So it is with Stevenson—it is his personal light-heartedness, his perennial delight in life, the freshness and flavor of his conversation and letters, the simplicity of his nature, the absence of all guile and deceit, his sympathy for men's follies and weaknesses, his inability to hold malice and harbor hatred—it is to these qualities that the mind of the present generation is as yet drawn, rather than to what is permanent in his style and thought; so that it is difficult in the immediate present to form an entirely unbiased judgment as to his final place in literature.

His chief merits and defects, and the main features of his contribution to literature may, however, be clearly indicated in a very few words. His parentage, birthplace, childhood associations, and early travels, favored a literary career, and from the first the one great ambition of his life was to write well. Incessant practice in writing, careful study of the principles of literary art, and familiarity with congenial authors in prose, gradually contributed to the desired end—literary success; but throughout life he never relaxed his efforts towards self-improvement, and he died just at the time when he might be said to have reached a mastery of his own department of literary art.

He excelled in at least four distinct departments of literature, the essay, the familiar letter, the novel, and verse. In the essay

and the letter his style shows the ease, grace and clearness of his masters Addison and Lamb, to which was added a freshness, a vivacity, an originality and a humor all his own. Few writers have been more free from stereotyped phrases and conventional forms of expression than he. It is in his essays and letters, too, that his attractive personality most strongly appears—his romantic temperament, his enthusiastic plea for happiness, for out-door life, for travel, and for courage in the face of all difficulties.

“Those he approves that ply the trade,  
That rock the child, that wed the maid,  
That with weak virtues, weaker hands,  
Sow gladness on the peopled lands,  
And still with laughter, song and shout,  
Spin the great wheel of earth about.”

But it is in the novel that his real literary power reveals itself at its best; and the first thing that strikes us as remarkable is his wonderful versatility. Most novelists are capable of only a single species of fiction; but there was no kind of story which Stevenson did not find himself capable of treating with success. The novel of incident, the love story, the picturesque romance, the detective story, the story of intrigue, the historical romance, the novel of manners, the character novel, the problem novel, each and all have their respective representatives in the catalogue of his works.

Stevenson is, of course, essentially a novelist of romance, delighting with a sort of artistic delight in the grim and terrible in life. The species of romance in which he is at his best is the novel of adventure by land and sea—broils, fights, duels, shipwrecks, pirates, and the quest for hidden treasure, “digging in an old monastery, diving in the deep sea, or sailing the Spanish main with a mutinous crew.”

But though he was essentially a novelist of action, the novels of his later period show a distinct advance in character-painting, until in the latest fragment, left incomplete at his death, we find the perfect balance between character and incident, between dialogue and narrative, which makes a perfect novel.

In prose Stevenson was a realist, much in the same sense that Wordsworth was a realist in poetry—not that the incidents and details of his stories are necessarily true pictures of actual life, but that in his portrayal of character, it is the basic passions, the primary motives by which men are first of all moved, that he

continues to seek. Hence his preference for children, and for savages, for the rude and the uncultured, in which these first elements of character are to be found in their simplest form.

The popularity of Stevenson, aside from the influence of his picturesque career, and attractive personality already referred to, lies no doubt, partly in the freshness and simplicity as well as the intensity of his style, partly in the attractiveness of his romance, and partly in the fact that his novels represent a new movement in literature, the return to the open air, to the freshness and delight in life, which had already found its first expression in the novels of Scott and Dumas. The reading world was tired of overdrawn analysis of novels with a purpose, and of poetry that was over refined, and eagerly welcomed the simple Tusitala—the teller of tales.

“To read him,” says one critic, “is to be forever setting out on a fresh journey along a white beckoning road, on a blithe spring morning. Anything may happen or nothing; the air is full of the gaiety of possible chances.”

“He was the laureate of the joy of life,” says another, “of the life here and now. He courted life like the gallant that he was, what time he himself was walking hand in hand with death. That joyous acceptance of life as it is, was the predominant note in Stevenson, and was the chief artistic lesson that he has left to his age.”

During the last few years of his life he gradually came to be recognized as the leader of a new movement in literature, and the founder of a new school of novelists. “By each succeeding mail,” says Sidney Colvin in speaking of the last few weeks of his life, “came stronger proofs from home of the manner in which men of letters of the younger generation had come to regard him as their master, their literary conscience and example, and above all, their friend. Deepest, perhaps, of all, lay that pleasure of feeling himself to be working once more at his best. Of the many and varied gifts of this brilliant spirit—adventurer, observer, humorist, moralist, essayist, poet, critic, and romancer, of all his many and various gifts the master gift was surely the creative, the gift of human and historical imagination. It was not in vain that his islanders called him Tusitala. Teller of tales he had been, first and foremost, from his childhood; seer into the hearts and fates of men and women he was growing to be, more and more. The time was now ripe—had only the strength sufficed—for his career as a creative writer to enter upon a new and ample phase. The frag-

ment on which he wrought during the last month of his life, gives to my mind—as it did to his own—for the first time the full measure of his powers; and if in the literature of romance there is to be found work more masterly, of more piercing human insight, or more concentrative imaginative vision and beauty, I do not know it.

“To the English-speaking world he has left behind a treasure which it would be vain as yet to attempt to estimate; to the profession of letters one of the most ennobling and inspiring of examples; and to his friends an image of the memory more vivid and more dear than are the presences of almost any of the living.”

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## NATURAL SCIENCE SECTION.

*SOME PALÆONTOLOGICAL RESULTS.*

G. A. SMITH, B.A., TORONTO.

"Chemistry is a French science. It was founded by Lavoisier of immortal memory." With this rhapsody Wortz opens the first chapter in his "History of Chemical Theory." With much greater truth may the future historian of palæontology exclaim, "Palæontology is an English science. It was founded by William Smith of immortal memory."

If we dignify by the name of science the very earliest speculations we find recorded concerning shells and bones dug out of the ground, then palæontology is indeed a venerable science, for we find, amongst the writings of various Greek philosophers as early as 610 B.C., frequent reference to fossils and some very learned discussions as to their nature and origin. Anaximander, who wrote about that date, not only speculated concerning the nature of fossils, but taught that man was developed from some lower form of animal, the idea being very evident throughout his writings that man was not created in an adult or fully developed state. Thus he foreshadowed, at least to some slight extent, twenty-five centuries before our time the modern doctrine of evolution.

After the Revival of Learning active discussions again arose as to the real nature of fossils, and many were the theories devised to account for their existence. One was that shells were formed in the hills by the influence of the stars. Another, that they owed their origin to a certain plastic virtue latent in the earth. A third, that fossil fishes were developed from fish spawn left behind in the earth.

A German school held that certain fatty matters, set into fermentation by heat, gave birth to fossil organic shapes. An opposing school taught that a lapidifying juice entered the pores of bones and shells and converted them into fossils. But the doctrine

which had most advocates and counted the greatest number of disciples was what was known as the diluvial theory. By this hypothesis all fossils owed their nature and origin, and if not that, at least their position in the rocky strata, to the Mosaic deluge. Amidst the many fanciful and fantastic ideas propounded, correct views were frequently expressed, but these were disregarded by the great majority, who refused even to consider any theory which conflicted with the tenets of the Church of that time. Palissy was the first who dared assert in Paris that fossil remains of fish once belonged to marine animals. So discussion went briskly on for many years with a gradual approach to more rational methods of investigation and a corresponding gain in scientific results, until, in the latter half of the seventeenth century, the true interpretation of fossils had been stated in a manner that left little to be desired. This benefactor of the science was Nicolas Steno, professor of anatomy in Florence. He dissected a shark which abounds in the Mediterranean sea, and compared its teeth and bones with certain fossils which had been found in Tuscany, and concerning which there had been some curious speculations. He pronounced these identical, and he also showed that many fossil shells correspond to existing shells, even in their minutest details of structure. He, of course, met with great opposition, as it was still a favorite dogma that shells and fossils were not of animal origin. Men were loath to believe that animals had lived on the earth before mountains were formed. About this time the Theologians of Italy, Germany, France and England took a hand in the fray, and those who refused to subscribe to the dogma that all organic remains were proofs of the Mosaic deluge were denounced as infidels and were threatened with the thunders of the Church.

More than one hundred years had been lost in combating the dogma that fossils were sports of nature and in establishing their true relationship, another one hundred and fifty years were now taken up in exploding the hypothesis that these fossils had all been buried in the solid strata by the Noachic deluge. Lyell says, "Never did a theoretical fallacy in any branch of science interfere more seriously with accurate observation and the systematic classification of facts. . . . A sketch of the progress of geology from the close of the seventeenth to the end of the eighteenth century is the history of a constant and violent struggle of new opinions against doctrines sanctioned by the implicit faith of many generations, and supposed to rest on scriptural authority." Even amongst the advocates of the



deluge theory there does not seem to have been a consensus of opinion. Probably that given by Woodward in 1695 is the best explanation of what the diluvialists really believed. He conceived the whole terrestrial globe to have been taken to pieces and dissolved in the flood and the strata to have settled down from this promiscuous mass as any earthy sediment from a fluid, and that marine bodies are lodged in the strata in order of their specific gravity, the heavier shells in stone, the lighter in chalk, and so on; and, although it was shown that heavy and light were often found in the same stratum, still, in their anxiety to accommodate all observed phenomena to the Mosaic account of creation, men closed their understandings to slight objections of that nature.

Some of the titles of works published at this time are very characteristic of the age. Burnet published "The Sacred Theory of the Earth: containing an account of the origin of the earth and of all the general changes which it hath already undergone, or is to undergo, until the consummation of all things." A production of Whistons in 1696 was entitled, "A New Theory of the Earth: wherein the creation of the world in six days, the universal deluge and the general conflagration as laid down in the Holy Scriptures are shown to be perfectly agreeable to reason and philosophy." In the early part of the eighteenth century several Italian geologists, by their writings, threw much doubt on the diluvial theory. They accounted for fossils much as we do now, but believed their presence in mountain chains was due to earthquakes and volcanic action.

In 1749, Buffon, a Frenchman, published a "Theory of the Earth," which reads more like the production of a modern geologist than anything met with up to his time. Shortly after its publication he received a polite note from the Church bidding him recant his opinions, and publish this recantation in his next work. The precious document begins as follows: "I declare that I had no intention to contradict the text of Scripture; that I believe most firmly all therein related about the creation, both as to order of time and matter of fact. I abandon everything in my book respecting the formation of the earth, and generally all that may be contrary to the narration of Moses." Thus, in all ages, has the Church encouraged the ambitions and aspirations of scientists.

The conclusions which Buffon had come to after a great deal of investigation were: (1) That the dry land was once beneath the sea; (2) that the formation of fossil-bearing rocks must have occu-

pied a vastly greater time than that which tradition ascribes to the age of the earth ; (3) that fossil remains indicate that different climatic conditions obtained in former times, and especially that the polar regions were once warmer ; (4) that many species of plants and animals have become extinct, and that geographical change has had something to do with geographical distribution. These propositions are all in perfect accord with modern concepts of palæontology, so that the way was being pretty well prepared for the apostle of the true science. Before the real nature and importance of fossils could be fully recognized and appreciated it was necessary that a man should appear who could divest himself of all preconceived notions about the origin of the earth, who could cast off all prejudices and who could bring actual practical knowledge to bear on his investigations. Such a man was William Smith, a modest English land surveyor, who, while diligently following his vocation, which took him into many parts of England, just as diligently kept his eyes open and noted what he saw. In the part of the country in which his work chiefly lay were numerous outcroppings of secondary stratified rocks. In these he noticed shells and fossils of various kinds, which he persistently collected, examined and compared. The results of his studies led the way to the science of palæontology, destined in its after developments to overturn old systems and establish new ones, and to set the scientific world at sixes and sevens. Thousands of fossils had been discovered before Smith's time. Cabinets had been filled with them. Philosophers innumerable had pondered over them and speculated concerning them, but, strange to say, not one of them had noticed the simple fact now first revealed to mankind, the inferences from which proved so absolutely revolutionary. Smith's discovery was simply this: that fossils, instead of being distributed in a heterogeneous fashion throughout the rocks, are arranged in a regular order, that each stratum contains certain fossils that are peculiar to it, and that the order in which the strata, characterized by these fossils, are superimposed, one upon the other, is always the same. For example, if strata, whose characteristic fossils are Belemnites, occur above those containing characteristic Ammonites in one series of rocks, they never occur below them in another series. This generalization was most important and far-reaching, and was soon verified in all parts of the world known to geologists. The rocks must have been laid down in successive layers and at different times ; generation after generation of living beings must have

flourished on the earth, fulfilled their mission and become extinct, to be succeeded by still others of a different kind. Smith did not rest satisfied with his great discovery, but, making a practical application of it, he constructed the first geological map of England—the first in the world—and was awarded the Wollaston Gold Medal in 1831. He made no secret of his views, and soon had quite a following amongst the geologists of his country. For more than a generation, however, only a small minority of the people accepted these views. The great majority, while conceding the animal origin of fossils, preferred to believe that they had been swept to the places where they were found by a mighty flood, which they conceived to be, needless to say, the Noachic deluge. If, as Smith's inference seemed to imply, there were fossils found in the rocks quite unlike any animals living to-day, then the only conclusions to be drawn was that past fauna had become extinct. He satisfied himself that this had been the case; but his deductions had been made chiefly from shells and small fossils, which did not impress the public mind. Fortunately there lived in France a contemporary of Smith, the great Cuvier, who was fitted by both nature and training to grapple successfully with just such a question as this, which needed the skill of a comparative anatomist.

Fortunately, also, just at this juncture a great wealth of fossil mammals were unearthed at some quarries in the older tertiary rocks of Montmartre, and were sent to Cuvier for examination. He pronounced them different from any animals in existence on the globe at that time. Unlike the diminutive shells of Smith, these included mastodons, tapir-like animals, hippopotami and others—in all about twenty-five species. In 1816 Cuvier published his famous "Ossements Fossiles," describing such wonderful animals as the anoplotherium and palæotherium, and, amongst others, the hairy elephant found frozen in the ice in Siberia in 1802, and named by Cuvier the mammoth. Not only did Cuvier proclaim these to be extinct, but he asserted that they had lived and died in the region in which they were found. These facts had already been set forth by the English surveyor, and we must accord him the greater honor, since he established, with fossil shells as his material, and entirely unaided, that which Cuvier, a specialist, required great skeletons to demonstrate.

But the discovery of extinct hoofed quadrupeds like anoplotherium and palæotherium, for which new genera had to be created, appealed to the imagination in a much more effective way than mere

shells, so the interest of the entire world was aroused. Not to be outdone by France, a great discovery of fossil bones was made at Kirkdale, in England, which showed that sometime in the remote past rhinoceroses, elephants and hyenas had roamed over the moors and fens of that country, and left their bones to astonish the natives in these latter days. Dr. Buckland, then the ablest geologist in England, like his French contemporary, pronounced these the remains of species now entirely extinct, and also claimed that they had actually lived and died in England. Even the possession of his degree of D.D. scarcely saved Buckland from denunciation by the Church for advancing opinions so out of harmony with the prevailing belief of the time.

It now began to be generally conceded, however, by geologists that the earth had been inhabited by successive populations of beings now extinct; moreover, that extinction seemed to have been somewhat sudden, as, on a superficial examination of the rocks, a certain type of fossil which abounded in the strata of one formation was immediately succeeded by an entirely different type, in equally great or greater numbers, in the strata of the next formation. How to account for this abrupt transformation in the nature of the fauna in passing from one series of rocks to the immediately succeeding one became the question.

To minds not yet rid of the Noachic dogma the solution presented no great difficulties. They said: "These great myriads of beings that have inhabited the earth in the past have been suddenly and completely exterminated by great catastrophes occurring at intervals. Of these catastrophes the Mosaic deluge was the last up to the present time."

Both Cuvier and Buckland gave the sanction of their great authority to this view. They considered the remains of the huge mammals which had been discovered in France and in England, and for which they had just devised new specific names, to be the skeletons of victims of that mighty flood whose waters had covered the whole earth, and it was an easy matter to extend this hypothesis so as to make it retroactive, and thus "invoke similar floods for the extermination of previous populations."

It takes new truths a long time to filter through so as to reach the great majority, and the more conservative were very loath to concede that the past history of the earth must be reckoned by ages rather than by years. But soon the doctrine of a sequence of populations and of catastrophic revolutions began to be accepted,

the more readily, perhaps, because it involved the idea of the Mosaic flood, to which geologists still clung with desperate tenacity; and for a time the geological lamb and the Mosaic lion rested side by side in peace and harmony. But it was only the calm presaging the great controversial storm. Men had scarcely had time to adjust themselves to the new idea of great populations suddenly terminated by great cataclysms, the whole requiring the lapse of almost inconceivable time for its accomplishment, before Sir Charles Lyell, the greatest geologist of his time, reviving and elaborating a theory announced some years before by Hutton, declared that the geological records gave no evidence of sudden revolutions or catastrophic happenings; but, on the contrary, warranted the statement that all past changes in the globe had been brought about by the slow agency of existing causes. While denying revolutions in the geological world, Lyell's advocacy of the Huttonian theory produced a revolution in the world of contemporary thought. The diluvialists were attacked in their last stronghold, and for more than a generation the fight was continued with great bitterness. The chief evidence in the geological record in favor of past catastrophes was the apparently sudden changes in the character of the fossils from one bed of rocks to the next above, but Lyell showed that this is in no case complete, but that some species always survive and find their way into the next stratum.

Nearly all of the invertebrates found in the same strata as the mastodon exist until the present time, and, indeed, many of the vertebrata, too, while certain brachiopods and lamellibranchs first found in the primary rocks are living to-day. So, also, when any particular formation is absent in a series of strata, it merely means that this region was above water at the time these rocks were being laid down, and this formation may be looked for in some other continent or region more remote.

"When evidence from widely separated regions is gathered," said Lyell, "it becomes clear that the numberless species that have been exterminated in the past have died out, one by one, just as individuals of a species die, not in vast shoals. If whole populations have passed away it has not been by instantaneous extermination, but by the elimination of a species, now here, now there, much as one generation succeeds another in the life-history of any single species. The causes which have brought about such gradual exterminations, and in the long lapse of ages have resulted in rotations of population are the same natural causes that are still in operation.

Species have died out in the past, as they are dying out in the present, under influences of changed surroundings, such as altered climate or the immigration into their territory of more masterful species. Past and present causes are one. Natural law is changeless and eternal." (This summary of Lyell's views is taken from Williams,\* whose general method of treating the more recent history of this subject I have made use of in this paper.)

The great influence of Lyell and his immediate followers at length prevailed, and the doctrine of catastrophism gave place to that of uniformitarianism. This more reasonable hypothesis soon established itself amongst geologists, and new problems began to force themselves forward for solution.

If the destruction of species is a gradual and successive process, then the appearance of new species must, in like manner, be gradual and successive. Then may not the species of animals now living be the lineal descendants of progenitors which have left their fossil remains in the later tertiary formations? This theory could scarcely be said to be new. Echoes of it had been heard all up through the centuries. One of its most prominent exponents about the beginning of the century was Lamarck, a Frenchman, and a fellow-worker with Cuvier. He noticed that the lower forms of life were found as fossils in the lower strata from which the higher forms were conspicuously absent, and that the higher forms abounded in the succeeding newer strata; and he insisted that the new forms had proceeded from older ones by generation, species having been gradually modified by the influence of external conditions. All the great authorities of the day were opposed to this. Such men as Cuvier, Owen and Agassiz, would have none of it, and even the great Lyell himself, "whose most remarkable mental attribute was an unfailing receptiveness to new truths," treated it with scant courtesy. Opposed to it was the theory of a special creation, which must have assumed an independent creative act for each of the untold number of species that have existed throughout the geological ages; that, when there was room on the earth for a new creature, it came up from the ground, like the soldiers of Cadmus, completely equipped and furnished, however uncouth an individuality it might possess, and was thus suddenly and surreptitiously ushered into the world to struggle with the conditions prevailing at the time.

\* Palæontological Progress of the Century.

I suppose this same theory is held by many good people to-day, but one can scarcely realize that so improbable an hypothesis numbered amongst its advocates the chief scientific thinkers who lived no longer ago than about the time many of us here were born. During the earlier years of the controversy over this question, a great mind was diligently investigating some of nature's methods, not in a well-appointed library, nor at second-hand in some dingy museum, but in nature's own laboratory, and with the most far-reaching results attained in this or any other age.

The opponents of the new theory had always demanded from its advocates an unbroken geological chain of fossil forms in all the stages of variation from the lower to the higher species. In 1859, Charles Darwin published his great work, "The Origin of Species." This book does not deal, except incidentally, with palæontology, but one chapter is devoted to the discussion of "Imperfections in the Geological Record," in which he demonstrates how absurd is such a demand. He there shows how rare are the conditions under which a fossil may be preserved at all, and if embedded how likely it is to be destroyed by metamorphism or erosion. Moreover, only an infinitesimal fraction of the earth's surface has been geologically explored. It is, therefore, clear that the palæontological record, as we now possess it, shows but a mere fragment of the past history of organisms on the earth. It is a "history imperfectly kept and written in a changing dialect; of this history we possess the last volume alone, relating only to two or three countries. Of this volume, only here and there a short chapter has been preserved, and of each page only here and there a few lines. For a palæontologist to dogmatize from such a record would be as rash as for a naturalist to land for five minutes on a barren point of Australia and then discuss the number and range of its productions."

Darwin's observations came as a new revelation to the geological world. A new interpretation was given to old facts. The new fossils of Cuvier and Buckland found a place as connecting links intermediate in structure between allied existing orders. Owen succeeded, with the aid of extinct species, in bridging over the wide gap between the pig and the camel. Generalized forms began to be spoken of. Agassiz had his synthetic or prophetic types; our own Sir Wm. Dawson his comprehensive types—which is merely another way of saying that from such generalized or primitive forms, by modification and specialization along different

lines, parallel groups of animals may be developed from an ancestral synthetic type. Agassiz, in his work on "Fossil Fishes," had already observed that the oldest fishes present many characters which recall the embryonic conditions of existing fishes, and that not only among fishes, but in several groups of the invertebrata, which have a long palæontological history, the latest forms are more modified; more specialized than the earlier.

Another no less suggestive observation was made by Darwin, some time previous to publishing his "Origin of Species," to the effect that the later fossils of any particular region present the same peculiarities of organization as the animals at present existing in that region, for example, in South America the present existing fauna is composed chiefly of edentates, smaller but similar in their anatomical structure to the later tertiary fossils of that continent.

In Australia the predominating fauna of tertiary and present time is marsupial, although the species of the older are largely different from those of the newer fauna. So, speaking generally, the fossils from any two consecutive strata show greater structural affinity than do those from strata farther removed in vertical sequence. This accumulation of evidence from different observers was now invested with a new meaning, and impressed men's minds in such a way as to give a rude shock to old and time-honored opinions.

Lyell at once became a convert to the hypothesis of transmutation of species, and the third great palæontological controversy of the century was renewed with a vigor and bitterness even greater than that which characterized the other two. Every vantage ground was stubbornly contested, but gradually the opposition gave way, and I think I am safe in saying that the last of that division of the enemy, with any claim to scientific discipline, have capitulated. This is scarcely true, however, of those more scattered and undisciplined units where the contest still proceeds with varying fortune long after the decisive engagement has been fought and won at the authoritative centre of action. Every new scientific truth, says Agassiz, must pass through three stages. First, men say it is not true. Then they declare it hostile to religion. Finally, they assert that every one has known it always. The proposition that the successive species of animals and plants have arisen, the later, by the gradual modification of the earlier, is the hypothesis of evolution. What has Palæontology done towards the elaboration and development of that wonderful generalization? While it is



true that the hypothesis does not owe its origin to palæontological evidence, yet have not the results of palæontological research in a most remarkable way confirmed the truth of that hypothesis and pressed it home on men's minds as nothing less concrete could have done? Huxley says that the palæontological discoveries of the last two decades are so completely in accordance with the requirements of this hypothesis, that, if it had not existed, the palæontologist would have had to invent it. Let us pass in review a few of the contributions of palæontology towards the hypothesis of evolution, as set forth in Darwin's remarkable generalization.

The two groups of fishes, ganoids and dipnoi, as known at the present time, have characters so distinct that zoologists place them in two separate orders. But the Devonian strata yield a rich supply of fossil forms, of which it is impossible to say with certainty whether they are dipnoi or whether they are ganoids. To the ordinary observer, probably no two groups of animals present less resemblance to each other or have fewer characters in common than reptiles and birds, yet the tertiary strata of Europe and North America have yielded a wealth of wonderful extinct fossil forms which completely bridge over the wide gap existing at the present time between the modern representatives of these two orders. The remarkable extinct dinosaur family varies in structure and habits from those distinctly reptile-like to those of biped habits and just as distinctly bird-like. From these to the pterodactyls, also extinct, is an easy advance. Many dinosaurs had the hand with three digits terminating in claws, which were quite comparable to the clawed digits of pterodactyls; between the skulls and teeth of carnivorous dinosaurs and certain pterodactyls there is a far closer resemblance than is seen between the skulls of the different orders of reptilia. The dorsal vertebræ of one might easily be mistaken for those of the other. The cervical rib of the dinosaur is often similar to that found in pterodactyls and birds. Other features connect both groups with crocodiles, as, for example, the possession of prepubic bones. The femur of dinosaurs is bird-like, while that of the pterodactyl has a tendency to be bird-like in the older forms, but inclines towards the mammalian type in the more recent cretaceous forms. All dinosaurs have the ilium prolonged in front of the articulation of the femur, as well as behind it, almost exactly as in pterodactyls and birds.

From the pterodactyl to the toothed bird the transition is not difficult. The oldest known fossil bird is the archæopteryx. All

that saves it from plebeian rank is the possession of feathers. It has reptilian teeth, set in reptilian sockets. It has a reptilian tail, with some twenty vertebræ, and the vertebræ themselves are of reptilian pattern. If it is not the traditional jackdaw with borrowed feathers, it is surely a reptile masquerading in feathers. If the pterodactyl be conceived of as divested of the enormously elongated wing finger, which is its most characteristic feature, or if that finger be supposed to be replaced by an ordinary digit, it would then approximate closely to the classic archæopteryx. In the cretaceous strata of the Western States Prof. Marsh found the remains of more than six hundred pterodactyls, some of them with a spread of wings of twenty-five feet. From the same strata he unearthed some two hundred toothed birds, which, unlike the archæopteryx, had lost most of their reptilian characters. The well-known *hesperornis* and *ichthyornis*, for example, while they still retained the reptilian-like teeth, and had the mandible adjusted to the skull in the same manner as in reptiles, were in most respects true birds, as we regard the type at the present day. Prof. Seeley, who is probably the best living authority on the affinities of fossil dinosaurs and pterodactyls, says: "It would appear from the vital community of structures with birds that pterodactyls and birds are two parallel groups. There is nothing to suggest that pterodactyls are a branch from birds; but their relation to birds is much closer, so far as the skeleton goes, than is their relation with the flightless dinosaurs." He suggests that all three may have had a common ancestor.

The tertiary lakes of the Western United States are probably the richest in the world in fossil remains of mammals of that period. Some truly wonderful contributions have been made in response to the persistent efforts of Marsh, Cope, Leidy and others; but probably none of these compares in interest to the remarkable series of fossil horses found buried in the strata of these ancient lakes. The modern horse may be regarded as a product of glacial or post-glacial age, but many members of the horse tribe roamed over the plains of North America long ages ago, and seem to have been especially numerous in the Rocky Mountain region. In the eocene strata of this region was found one of the oldest direct ancestors of the horse, named *eohyppus*. Several species have been found. They were quite small, about the size of a fox. So the horse of to-day cannot boast much of his ancestry. Like most of the early hoofed mammals, it had forty-four teeth. The front feet

possessed four toes, with a rudiment of a fifth. The hind feet had three toes. The radius and ulna were distinct. In another species, *orohippus*, the rudiment of the fifth toe had disappeared. In the lower miocene was found *mesohippus*, in which the lower end of the ulna was incomplete. A still more specialized form, *miohippus*, was about the size of a sheep, and had only three toes functional. A still greater change is seen in *protohippus* of the lower pliocene, in which the middle toe alone supported the weight of the body, while the other two acted as dew-claws. Some of the species of *protohippus* were about the size of a donkey. Another pliocene form, the *pliohyppus*, has lost the small dew-claws, which have dwindled to mere splint bones, as seen in the modern horse. This one also presents the last stage in the modification of the teeth, a process which had gradually been going on in the various species enumerated. In the upper pliocene the true horse appears, and the line of descent is complete. Many cases of atavism, or reversion, to a more primitive type, are known amongst modern horses. Usually only one extra toe—the inside one—makes its appearance, but sometimes two are developed, one on each side of the normal; and in the museum of Yale College is a specimen of a horse which, besides having two extra toes, had concealed beneath the skin the remains of another one, making in all four toes on each foot, thus approaching the four-toed *orohippus* of the eocene.

While the correlation of the structural characters of reptiles, dinosaurs, pterodactyls and birds, and the working out of the evolution of the horse are probably two of the most striking triumphs of palæontological research, they are by no means isolated results.

Within the past few years a considerable number of remarkable extinct fossil reptile-like forms have been discovered in secondary strata in South Africa, which, in their general structure, show a strong resemblance to the labyrinthodonts, but which also show such marked affinities to the lowest class of mammals, the monotremes, that palæontologists have concluded that "labyrinthodonts, theriodonts and monotreme mammals are all descended from some common amphibian stock."

So Cuvier's *anoplotherium*, when compared with existing hoofed animals, had many features in common with the pigs on the one hand, and with the ruminants on the other, holding somewhat of an intermediate position and tending to bridge over the interval between the two classes.

The *palæotherium* tended to connect forms so different as the tapir, the rhinoceros and the horse.

Cope has worked out the ancestry of the camel in great detail from the rich fossil tertiary beds of Western America. Like many other old-world forms, its progenitors seem to have been natives of this continent and to have migrated across the Behring isthmus of later tertiary times.

Dr. Wortman has shown that the ancestors of the existing Edentate fauna of South America, as well as of the huge fossil sloth megatherium and its contemporaries of tertiary strata, originated in North America long before the two continents had land connection. The elephant of to-day has a fossil lineage reaching back through the mammoth and mastodon to the dinotherium of tertiary strata.

Not the least instructive chapter in the palæontological record is that which first brings man into the story. Flint implements and remains of man, associated with the fossil remains of the mammoth, the cave bear and other extinct mammals, were found in various parts of Europe about the middle of last century, which would go to show that man must have been contemporary with these extinct animals. This has been amply confirmed by finding rough sketches of various animals, such as the mammoth and Irish stag, on pieces of ivory, associated with human remains of the stone age. So our ancient ancestral artists must have been acquainted with the living mammoth. Three skulls have been found which have become historic. Two are distinctly Simian in character. The last was found in 1895 in Java by Dr. Dubois, in what is claimed by many to be tertiary strata. It was examined by Huxley, and has been named *pithecanthropus erectus*. According to Dana, "The evidence seems to render it probable that the earliest of pre-historic races, ranging from the East Indies to Western Europe, possessed features more Simian than are characteristic of any race of men now in existence."

I have here outlined in a very imperfect way the development of the science of Palæontology and a few of the results which must be placed to its credit, and which have contributed probably more than anything else towards the solution of the question of transmutation of species. As Professor Huxley has said: "On the evidence of palæontology the evolution of many existing forms of animal life from their predecessors is no longer an hypothesis, but an historical fact."

Thus, apart from biological considerations altogether, the science of palæontology has accomplished the complete vindication and establishment of the doctrine of transmutation of species. Is the

science now on a genuine basis, on a lasting foundation, and does nothing remain but the working out of the details, the augmentation of the splendid results already attained, the completion as far as possible of the very faulty geological record ? or, as Dr. Williams very aptly puts it, " Do we only await the coming of the twentieth-century Lamarck or Darwin, who shall attack the fortified knowledge of to-day with the batteries of a new generalization ? "

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*NATURAL HISTORY CLUBS.*

(Condensed Report.)

PROF. M. W. DOHERTY, O.A.C., GUELPH.

I take this opportunity of calling your attention to the workings of the Wellington Field Naturalists' Club, because, as the result of two or three years' experience, I am of the opinion that such clubs may be of considerable assistance in the teaching of Nature Study in schools. I am perfectly aware that clubs similar in every respect to this one cannot be formed in all districts: but with slight modifications, a club with the same intents and purposes could be formed in the most outlying rural school section. These clubs possess a decided advantage in that they cultivate in the pupil a love of Nature; they cultivate the powers of observation; and they do not displace other subjects from the curriculum. This is true because of the fact that they operate on Saturdays and before and after school hours.

The Wellington Field Naturalists' Club was formed as a result of a necessity which was felt by a number of young naturalists living in and about the City of Guelph, for a comparative study of the collections of plants, insects and birds which they had been making. A number of the more enthusiastic met, and, as a result, the Wellington Field Naturalists' Club was called into existence. In the constitution, as then drawn up, it is stated that the object of the Club shall be the bringing together of collections made in the County of Wellington, and a comparative study of these, in order that a complete knowledge of the flora and fauna of the county may be had. It is further stated that the Club shall do all in its power to assist in the introduction of Nature Study into our schools.

Toward the furtherance of the first object each member of the Club has undertaken the study of some particular division or branch, and is responsible for as complete a collection as it is possible to make in this branch. For example, one member has undertaken to catalogue all of the different species of grasses to be found in the county; another has undertaken to study the various species of sparrows, and to report upon their food habits; still another, the study of the mammals of the county; and yet another, the study of the reptiles. By giving particular work to each member in this

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way, much more satisfactory results will be forthcoming. Meetings are held semi-monthly, and each member reports upon the progress he has made in his study, and also upon his observation notes for the two weeks. All the members are encouraged to keep diaries, in which are noted all phænological observations of value. As a result of the work along this line, an increased interest is now manifested among the people of not only our College but also of the Collegiate Institute and Public Schools of the city, and our museum collections are being more freely utilized.

Toward the furtherance of the second object it is the intention of the members of the Club to hold a Natural History exhibition during the month of December of the present year. At this exhibition, which will be held in the City Hall, most probably during the Fat Stock Show and meetings of the Ontario Experimental Union, prizes of considerable value will be offered for the best collection of wild plants, weeds, weed-seeds, leaves of shade trees, butterflies and moths, injurious insects, photographs from nature, and the best essay on any subject, in any of the following branches: Ornithology, Botany, Entomology, Geology.

Every man, woman and child in the County of Wellington not engaged professionally or in the making of collections may compete. It is hoped by this means to encourage among the younger people at least the habit of observing, collecting and classifying the things about them, and to teach the pupils of our schools that the great object of an education is something other than to give the possessor an advantage over his uneducated brother in the maddening rush for wealth; to instil into their minds the idea that it is possible for the person with a trained mind, though he may always live in a cottage, to be as happy and to lead as good and happy a life as any member of the wealthy class; and to open the eyes of the pupils to a new world which will prove an inexhaustible source of pleasure. For, while to the common mind common things appear in no way wonderful, to the trained mind the most insignificant creature that lives affords a source of much pleasure, consideration and study.

*CHEMICAL AND PHYSICAL REACTIONS.*

W. LASH MILLER, PH.D., F.R.S.C., TORONTO.

In the last few years it has become quite the fashion for physicists and chemists to write books on the philosophy of their respective sciences, and last year the climax was reached when one of the best known of the German Professors of Chemistry, in Leipsic, having been granted a year's holiday by the University authorities, spent it in preparing and delivering a course of lectures on philosophy.\* My friend, Dr. J. J. Mackenzie, who was present at some of the lectures, informs me that they were delivered in the largest lecture-room in the University, and were regularly attended by an audience of between three and four hundred; so that, whether the philosophy was good or bad, we may be sure that the lectures were interesting.

There are two matters, rather obvious perhaps, but very important, on which all these amateur philosophers agree. The first is: That the nomenclature, the theories, and the general trend of thought common among scientific men at any time, depend not only on the facts of the science which are known at that time, but also, and in a much greater degree, on the order in which these facts have been discovered and interpreted. The theories put forward to explain the phenomena first studied are retained, and patched, and added to, and forced to explain the new facts as they are brought to light.

We are all such conservatives at heart—whatever we may call ourselves for political purposes—that the mere fact that a theory is an old one, and has been taught us when we were students, seems to be an argument in its favor; whereas, in reality it only proves that the theory in question was invented in the old days, when a great many facts now familiar had not yet been discovered. And the consequence of this conservatism is that when the time has come for the old theory to step aside—when in the struggle for existence it has been defeated by a younger rival—



there are always men to be found who will range themselves resolutely on the side of the old against the new—men who genuinely *believe* in the theory in which they have been brought up, and who may be relied upon to advance and defend any absurdity, if only it afford a chance of escape from the logic of their opponents.

An excellent example is afforded by the contest between the Phlogiston theory and the present theory of combustion, which took place at the end of the eighteenth century. In spite of the advantages of the modern view, obvious enough now, the Phlogiston theory died hard. Some of its adherents pooh-poohed all arguments based on the use of the balance, on the ground that this was a “physical” instrument, and ought not to be brought into a purely chemical controversy. Others endowed Phlogiston with negative gravity, others again identified it with hydrogen—anything but give it up. Priestly, the discoverer of oxygen, remained steadfast to the last; a Phlogistonist he was born, and a Phlogistonist he died.

The second point made by our philosophers is: That the order of discovery, on which so much depends, though settled in some cases by chance, and in many cases by pecuniary and economic conditions, in general follows this law, namely, that the most striking, the most wonderful, phenomena are taken up first; the commonplace and the uninteresting have to wait.

Of all chemical phenomena the most striking are certainly those of combustion with the evolution of flames, light and heat: and, accordingly, we find that the first chemical theory was the Phlogiston theory, or Flame theory. Its downfall was brought about by the study of comparatively obscure reactions of mercury and lead.

After combustion, the reaction between acids and bases has attracted the attention of chemists perhaps more than any other. In this jar I have a mixture of sulphuric acid and water, some litmus, a stirrer, and the bulb of a thermometer; in the burette is ammonia. As the ammonia runs into the jar its smell and taste and the sharp taste of the acid disappear; the thermometer rises, the liquid expands (two pints do not make a quart when one is ammonia and the other sulphuric acid); in short, a “chemical reaction” is taking place. Suddenly the red color of the litmus changes to blue, the smell of ammonia is noticeable, and the thermometer ceases to rise, although ammonia is still flowing into the cylinder—the reaction is over.

The more this reaction was studied the more wonders were discovered. We began with ammonia gas and water, and (liquid) sulphuric acid and water; if water be removed from the contents of the cylinder a solid will remain. Measurement of the quantities of acids and alkalies which react together led to the law of combination in reciprocal proportions; the law of combination in multiple proportions soon followed, to explain which the school-master of Manchester set up his Atomic theory, one hundred years ago—an extraordinary theory, based on extraordinary facts.

Originally invented to explain the law of multiple proportions, this Atomic theory soon became the fundamental doctrine of chemistry. The highest aim of chemistry was to become the “mechanics of the atoms.” In the cylinder we saw the bubbling liquid, the rising thermometer, the change of color. We are invited to believe that what was “really” there was: a whirl of atoms and molecules, attracting and repelling one another, rushing past one another, colliding uniting together. A little universe in the cylinder; an astronomical system on the small scale.

You have read, no doubt—perhaps in some Commentary on the Book of Joshua—of the tremendous quantity of heat that would be generated if this earth should suddenly stand still; or, worse, should collide with some other planet. The heat of combustion of dozens of earths of coal would be nothing to it. When the ammonia planet collides with the acid planet in the astronomical system in the cylinder, a similar quantity of heat must obviously be generated: it is only because these planets are as small as the others are large, that we have escaped with our lives!

Thomsen, of Sweden, and Berthelot, of Paris, were the first to call attention to this consequence of the “mechanics of the atoms.” “Every genuine chemical reaction must be accompanied by evolution of heat”—using words borrowed from the science of mechanics, Berthelot baptized this principle the “Law of Maximum Work.”

Now, Thomsen was a Northern chemist; but Berthelot lives in Paris, where it is execrably hot in the summer time, and every time he put a bottle of champagne on ice he must have been reminded that there are reactions which are accompanied by a very considerable—and a very grateful and comforting—*absorption* of heat. Lest it should escape his notice, this fact was repeatedly pointed out to him by others, some of whom were perhaps a little too much inclined to jeer at his law of maximum work. But Berthelot had a reply. He silenced all criticism by distinguishing

between "chemical" and "physical" reactions. Such reactions as the change of ice into water, of water into steam, and of salt and water into brine, do not come into the province of the law of combination in multiple proportions, and they are in flat opposition to the law of maximum work; so Berthelot read them out of the party, and denied their right to be called chemical.

When we speak of this celebrated chemist "silencing all opposition" to his law of maximum work, these words may be taken, I am sorry to say, in a very literal sense. Besides being a chemist, this remarkable man was a politician, and has occupied the position not only of head of the Department of Education, but of Minister of Foreign Affairs of the French Republic. His word was law in all that concerned appointments in chemistry in the University of France, and more than one French chemist has found that opposition to the scientific views of the powerful Minister meant exile from Paris. For them, the law of maximum work read "Maximum Work and Minimum Pay" in a distant part of the provinces, far from the boulevards of Paris where we have pictured the Head Chemist of France keeping himself comfortable during the hot weather by the help of a heat-absorbing—and therefore non-chemical—reaction.

Under somewhat similar circumstances Galileo recanted, consoling himself with the reflection that his words would not affect the motion of the earth. But these men were teachers; a single perfunctory recantation would not serve in their case; they were called upon to *teach* what they believed to be false. If they had consented the motion of the world would have been perceptibly retarded.

Leaving the chemists and returning to chemistry, Berthelot's views met with fair success. Everywhere we find the majority agreed that to boil water is not a "chemical" process, neither is it to dissolve sugar in one's tea. Ice and water, water and steam, are "the same thing," and in the brine both salt and water are present "unchanged." Can one not *see* the water? and *taste* the salt?

The physicists, too, were satisfied. The reactions ejected from the "official tabernacle" of chemistry found a good reception. Regnault, the celebrated experimentalist had made an exhaustive study of the conditions under which water, ice, and steam may be converted one into the other, and finally Clausius perfected the theory of these reactions. Rejected by the chemists and adopted

by the physicists, surely these reactions have a good right to be called "physical."

Clausius' theory was a non-chemical theory, there were no atoms in it: and, still more characteristic, it involved the use of the calculus. At that time the calculus was a distinctive tool of the physicist, just as previous to Lavoisier the balance was: and the sign  $dx$  was as characteristic of a work on physics as  $H_2O$  is of one on chemistry. How much the times have changed can be seen from this lantern-slide.\* This change came about in a very natural manner. Some level-headed manufacturers in place of setting their chemists at work discovering new compounds, which might or might not prove serviceable to them when discovered, set them instead to find the best methods of making products already known, for which there was already a market. And thus a new problem arose in chemistry; to be solved only by studying the influences that modify the nature and quantities of the products of chemical reactions, and the rates at which they take place;—for time is money in a chemical factory as well as elsewhere.

This was the very problem that Regnault and Clausius had solved for the change of water into steam.

One of the most famous of the early experimenters in the new direction, was a chemist who studied the behavior of a great many substances at very high temperature; his favorite piece of apparatus was a white-hot platinum tube. This man went by the appropriate name of Deville. His most important discovery was, that many substances, water for instance, which are readily formed from their elements at ordinary temperatures, are decomposed into their elements again at a white heat. That, in fact, the reaction  $2H_2 + 2O_2 = H_2O$  is a "reversible" reaction in the same sense that the reaction "water=steam" is reversible; the one substance turns into the other, or the other into the one, depending on the temperature.

This discovery was a staggerer to the law of maximum work. When water is formed from its elements heat is given out; when it is decomposed heat is absorbed. If both phenomena were to be regarded as "chemical" reactions the law had to be repealed.

I shall not go into details as to the determined attempts that were made to uphold the majesty of this particular law; the last struggles of the phlogistonists a hundred years ago were not

\* Photograph of a page of van Laar's "Mathematische Chemie."

more ingenious and persistent. But the new facts brought to light in the course of the argument have gradually made it clear to every one that the reactions studied by Deville are not isolated, exceptional cases; but that, under suitable circumstances many of the best known "genuine chemical" reactions are as capable of taking place in either direction as are the physical reactions:  $\text{Water} = \text{ice}$ ;  $\text{water} = \text{steam}$ ;  $\text{water} + \text{salt} = \text{brine}$ .

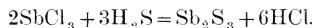
The factors that determine the direction of the reaction—temperature, pressure, concentration—are the same that affect the physical reactions just enumerated; and lastly, while the theory of Clausius has proved capable of predicting the direction and the yield of particular reactions under given circumstances, the Atomic theory cannot even "explain" the formulas and equations by which this result is accomplished. This seems to me a very striking circumstance; every one who has used a "key" knows how easy it is in general to solve a problem when the answer is supplied.

And so, with heavy hearts, perhaps, and some of them later than others, the chemists took to buying Clausius' works and then books on the calculus, as a preliminary to understanding him; a bitter dose for those among them who had all their lives "thrown physics to the dogs," and whose higher mathematics were limited to the expression  $D—x$ . But, needs must! and now they are writing books on the same lines themselves. You remember the lantern slide?

Naturally enough an "anti-atom" party has arisen. "The mechanics of the atoms raised a barrier where none should exist," they say, "*A la lanterne* with the mechanics of the atoms!" Of course, it is possible to go too far in this direction also, and perhaps the Germans need to be reminded of their own proverbs: "When emptying the bath don't throw out the baby," and "The scum is at the top, and the dregs at the bottom, but the beer is in the middle." The past history of the science however encourages us to hope that if there is any baby at all, or any beer, the chemists will succeed in finding them.

I have endeavored to give a short account of the history of the distinction between chemical and physical reactions. There was thought to be a difference of kind, it is now known to be one of degree only.

At the close of the paper an experiment\* was shown, illustrating the reversibility of the reaction,



An antimony solution was prepared by dissolving 2 grammes of tartar-emetic in 20 cc. of hydrochloric acid sp. gr. 1.148, and diluting with 80 cc. of water.

- |   |           |    |
|---|-----------|----|
| (a) Passed a little $\text{H}_2\text{S}$ into 5 cc. antimony solution | - -       | —> |
| (b) Added 15 cc. hydrochloric acid (sp. gr. 1.148)                    | - -       | <— |
| (c) Added 5 cc. antimony solution                                     | - - - - - | —> |
| (d) Heated over a Bunsen burner                                       | - - - - - | <— |
| (e) Cooled again in a dish of water                                   | - - - - - | —> |
| (f) Added 10 cc. hydrochloric acid                                    | - - - - - | <— |
| (g) Saturated with $\text{H}_2\text{S}$ under 4 atmospheres pressure  |           | —> |
| (h) Reduced the pressure to 50 mm. (by a filter pump)                 |           | <— |

NOTE.—The arrows indicate the direction of the reaction ; —> meaning precipitation of  $\text{Sb}_2\text{S}_3$ , and <— formation of antimony chloride from the sulphide and hydrochloric acid.

\* W. Lash Miller and F. B. Kenrick, Lecture Experiments, Reversible Chemical Reactions. *Jour. Amer. Chem. Soc.* xxii, 291 (1900).

## CLASSICAL SECTION.

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*LATIN FOR THE PUBLIC SCHOOL TEACHER.*

W. N. BELL, B.A., PARIS.

A great deal of emphasis has of late been laid in this Province upon what is called the practical side of education. The recent action of the government in strengthening the science side of the University got a great deal of support from the press and the public, on the ground that it was a step in the direction of the practical. Manual training classes have been opened in connection with the High Schools in several places. Shorthand and type-writing are taught in many of the High Schools. These movements serve for the moment to emphasize the demand of parents for a practical and useful training for their children. The schoolmaster is constantly called upon to show why this or that subject should be studied in school.

This demand should, of course, be resisted, in so far as it proceeds from a desire to have the school transform the pupil directly into a wage-earner. To accede to this demand would be to degrade school into a dull routine, to leave untouched and untrained the nobler side of life, and to foster the narrow, selfish and always too evident utilitarian view. The pupil, confined to a narrow and jejune range of subjects, and seeing the immediate application of everything he deals with in school, could scarcely be expected to become anything but a man of narrow views and selfish motives. If he, by any chance, does develop into a good citizen it is because of some inward grace, and in spite of his schooling. Mental myopia is innate, and it is one of the most important functions of education to provide a corrective.

But, on the other hand, the demand that time shall not be wasted in school with the useless or the merely ornamental is a perfectly reasonable demand. For the ornamentals of education should be left to the individual.

In view of the special prominence of the practical side at the present time, it seems not inopportune to inquire what is the

practical and the useful in education. These words are commonly used in a very restricted sense. If you ask the average critic of our school courses what he means by these words, he will likely say that he refers to such subjects as reading, writing and arithmetic. That is to say, such accomplishments as the pupil will turn to direct and immediate use in his every-day life. Of such subjects we have on the High School programme of studies, reading, writing, drawing, bookkeeping, geography (in part), English composition (including spelling), and in some places manual training. This is all we have, and probably all we need. The rest of the time is required for subjects that discipline the mind more particularly, or, that address an appeal to the moral and emotional side. The arithmetic of the High School course (and, indeed, the mathematics *in toto*) is purely disciplinary, except for the specialist. It is necessary to say this, for, as Professor Hale says, "a strange misconception exists" that arithmetic is a science we apply to almost every operation of our ordinary life. Whereas the simple operations learned in the Public School are all that any of us untechnical people put into practice.

It follows, from what has been said, that if the view promulgated by Herbert Spencer, sixty years ago, is sound, and Latin is merely ornamental, it should be cut off, not only from the requirements for Public School teachers, but from the school curriculum altogether. The public must not be expected to pay for ornament. We ought to be content with the substantial meal at the public cost and pay for the confections ourselves. We, who teach classics, must learn to be "hewers of wood," or expert penmen, or to play on the typewriter, or, as Spencer would have us perhaps, anatomists. "Men who would blush," said he, "if caught in saying Iphigénia instead of Iphigenía, or would resent as an insult any imputation of ignorance respecting the fabled labors of a fabled demigod, show not the slightest shame in confessing that they do not know where the Eustachian tubes are, what are the actions of the spinal cord, what is the normal rate of pulsation, or how the lungs are inflated." But, on the one hand, not even Spencer would maintain that knowledge of quantities and of fables is the chief concern of the classical student; and, on the other, a moment's reflection should convince the unbiased that knowledge of physiology and kindred subjects, vaunted so loudly as *practical*, are only so in appearance. The mental discipline apart, such knowledge is, in fact, strictly ornamental, except to the physician or other technicist. Our



Eustachian tubes perform their functions spontaneously, and knowledge of their position would in no way affect their action. We cannot improve the action of the spinal cord nor the inflation of the lungs "by taking thought" any more than we can add to our stature. The moment anything goes seriously amiss with our tubes, or cords, or lungs, we resort to the physician. Even he pays no regard to the precept, "Physician, heal thyself," for, though he may be a perfect anatomist, he has recourse to a brother doctor when his own tubes are out of order. Furthermore, it has not been observed that doctors or scientists are any more healthy, happy or longevous than even classical teachers. What has been said of anatomy and physiology is almost equally true of the other physical sciences. Admirable as is the mental attitude these studies create and the training they confer, it is a mere chimerical superstition to suppose that for the average human being there is, in the narrow sense, any considerable *practical* element in any of them. Yet so many heads has this modern Hydra of late put forth, that we seem still to have need of the club of Hercules.

But this is somewhat of a digression. The object of the paper is to show that the study of the classics, and of Latin in particular, is vastly more than an ornamental element in education. We do not deny that there is an ornamental side. A certain refinement and grace does spring from the study. But this is not to us—as Spencer makes it—like beads to the Indian savage or toys to children, but rather like sculptured adornments in the art of building.

It is not my intention to traverse the whole field. Of the key that a knowledge of Latin gives one to Roman history, of the influence upon the mind and emotions of close contact with the *Æneid*, for example, I shall say nothing. Of the disciplinary power of Latin, a quotation from the Headmaster of Hailebury College England, Mr. Lyttleton, a member of the late Royal Commission on Secondary Education, will suffice: "If there had not been in the study of these languages (Latin and Greek) some peculiar quality which braces the faculties of the learners . . . it may quite safely be said that classics would long ago have been restricted to a small coterie of scholars. . . . An admirable tonic virtue resides in these languages, owing to the fact that they are no longer spoken as they have been written. It cannot be denied that, even in the earlier stages of translation into Latin from English, the pupil constantly has to think deeply into the meaning of an expression for which in French or German he would find in the dictionary an

almost exact equivalent. This characteristic, combined with others more generally recognized, has enabled the study of Latin to survive the heavy assaults of the last half-century. People go on defending it as though it could turn business men into *litterateurs*. It can and has done nothing of the kind, but it is an unrivalled instrument for stimulating the reasoning faculties at an age in which their very existence might almost seem open to doubt."

If this is true, and I am thoroughly convinced that it is, it would appear that Latin, in the High School stage of the subject, is, in the widest sense of the word, a *practical* subject. There are, however, other practical aspects. In Latin we have a means of giving a training in a branch of English which no teacher finds too easy to handle, that is English composition. We have here to overcome a paucity of ideas and a meagre vocabulary, where ideas and vocabulary never quite coincide, for the pupil has not only a few ideas he cannot express but a few words that he cannot define. Let him frequently, for his composition lesson, turn a piece of good Latin into well-chosen English and he will constantly be gaining in power of expression, range of ideas and definiteness of vocabulary. This exercise will always necessitate careful discrimination and choice, both of words and constructions.

The etymological value is another aspect of Latin. How often I have heard people with no Latin say that one of the most useful things they learnt in school was the list of Latin and Greek roots at the back of the old grammar. If a list of words so studied, without any knowledge of their inflection, is so useful, how much more so, in the same direction, would a competent knowledge of these same words as inflected and used in Latin be. Indeed, this advantage is so apparent that scarcely any one would venture to deny it.

Latin has a third important bearing on English. It helps to make one's knowledge of English grammar scientific. It was Goethe, I think, who said: "He that does not know a foreign tongue, does not know his own." It is a truism to say that no one can be a scientific botanist who knows nothing of the related branches of biology. In the physical or natural sciences one branch serves to throw light on the other. The science of English grammar is no exception. It is no more isolated and self-contained than a branch of the other sciences referred to. When we are not clear as to the precise function of a word or phrase in English, we often get light by referring to the parallel expression in Latin. Latin syntax virtually throws a flood of light on English syntax, though the languages are utterly

dissimilar in syntactical method. Let us note one or two of the quite natural misconceptions likely to exist in the minds of those who know no language but the mother tongue. The word-order of the mother tongue would seem the necessary and only possible order. Latin shows that quite a different order can be natural, too. It is only from a comparative study of word-order that one gets at the true philosophy of it. Again, it would be quite natural to suppose that every word of the mother tongue has an exact equivalent in other languages. Thus many people cannot understand the difficulties of translation, *e.g.*, of the Bible. Suppose some one brings such a phrase as "*mutatis mutandis*" to you for translation. What impression will he be likely to carry away? Suspicion of your Latinity, of course. Though he may see that your translation fits the context, yet you seem to give him more than the right change back.

It will be admitted that such things are natural and the question is now before us: Can the person, who has not long since banished misconceptions of such a character, and who has not the grasp that comes from comparative study, be said to have a teaching knowledge of English grammar? It is not surprising that the value of English grammar as a public school subject has been questioned. The value of any subject, that is not scientifically presented, is sure to confront the interrogation point.

And now I must perforce beg your indulgence while I make clear my motive in the preceding arguments, lest the cloven foot may seem to lie hidden somewhere, and a dread of being driven to the straits of Othello. To be sure, we have high authority that the dread is groundless. Well, then, self-interest would prompt both principals and classical teachers to take exactly the opposite ground and for the following reasons. In the old days before Latin was a requirement for a teacher's certificate, there was a considerable influx at Christmas of somewhat mature young men, and women, too, who might or might not have been teaching already, on the third-class certificates. If they were diligent and ambitious they could squeeze through the second class examination at mid-summer. This, of course, increased attendance, and especially county attendance, the more desirable from a financial point of view. Since the addition of Latin to the obligatory subjects, this Christmas influx has stopped, and here we have part of the explanation of the decline in attendance since 1896. There are other causes of this, of course.

At any rate the decline has had its effect on salaries, and it has not always been easy to look forward *oculis inretortis*.

But while the general attendance has declined, the classes in Latin have grown to such an extent that classical teachers have been sadly overburdened. It must be admitted that this is only in part chargeable to the changed requirements for teachers' certificates but partly, and it may be largely to ill-advised pressure being exerted to induce every one, no matter how short his stay in the school is likely to be, to take Latin. It is clear, therefore, that no Principal and no classical teacher can justly be charged with self-interest in advocating obligatory Latin for teachers. Self-interest would prompt each to say, "away with it."

From what I have just said, it will be seen that the requirement of Latin acts as a deterrent to some who would otherwise be willing or able to become teachers. It is much to be doubted, however, that the profession is suffering for the lack of those who cannot, or of those who will not—of those who have not enough language ability to learn Latin (and there are such), or of those who would come into the land of abundance if they could slip in by a short cut. If Latin were good for nothing else it puts an end to cramming, or if it does not, the teacher is wholly and transparently to blame. There is not one in five hundred who can, by his *own* efforts, cram up enough Latin to pass the Junior leaving grade in a year, much less in half a year, and keep up his other subjects as well.

From these considerations I conclude that we cannot afford to cut off Latin from the obligatory list. If the course is too heavy the axe must be laid elsewhere. Whether we look at Latin as an instrument for mental discipline, or as an ally to the teaching of English composition, or as affording a scientific breadth in the treatment of English grammar, or as one of the means of touching the inner sense of the beautiful and the noble, or even as a test by which we can diagnose the literary capacity of the candidate for the certificate—whatever aspect is regarded, Latin is indispensable to the education of any school teacher. Principal McCabe, of the Ottawa Normal School, in his official report, says: "There is no concealing the fact that we Normal School masters find our students with few exceptions lamentably deficient in a cultured use of the English language. This defect has always been a source of great regret to me. This is a weak point, a very weak point, in the qualification of many of our teachers." We must keep in mind

here that the Normal School masters have not yet dealt with classes, composed entirely of students trained in Latin. So that Dr. McCabe is speaking of classes, either wholly without Latin, or largely so, the percentage of Latin-trained teachers probably being in the minority even last year. How is this serious defect, indicated as it is by long experience in the Normal School, to be remedied? Not certainly by the omission of the study that is already working the cure.

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*LATIN PALEOGRAPHY VERSUS ROMAN PRONUNCIATION.*

(Curtailed.)

R. ROSS, B.A., PEMBROKE.

Amid the multitude of reforms that have been made, and the still greater number that have been proposed, by some curious mischance this that I am about to speak of has been neglected. Although it is one that must at once appeal to every lover of the archaic and the out-of-date. My proposal is this, that in our teaching of Latin we should use books printed as nearly as possible in the book-hand of the classic period, and that in writing Latin we should use the cursive style current in the classic period of Latin literature as nearly as can be ascertained what that cursive style was. This, at first blush, may seem to some to be a too radical innovation, and at the same time one that is not imperatively demanded. I hope, however, to be able to show very good reason why we should no longer delay to make this most desirable change.

The very first thing that naturally strikes one in considering such a change as the one I have proposed, is that it will be immensely more difficult to learn to read the language when printed in such characters, and that it will be incalculably more difficult to learn to write it. It will, indeed, and that is the very best reason for advocating this innovation. Latin is not in any case an easy language to learn; on the contrary, it is recognized by the majority of the students in our schools as being a decidedly difficult language to learn. That is one great merit it possesses as an instrument of education. If, therefore, it is a good instrument of education on account of being a difficult language to learn, why not make it a still more difficult language to learn in order that it may become a still better instrument.

This was, no doubt, the great thought that swayed the minds of those who, some ten or twelve years ago, inaugurated a movement for the introduction into the schools of Ontario of the Roman method of pronunciation. They knew Latin to be a difficult language to learn, and in order to make it a more perfect instrument of education, they set about introducing a method of pronunciation that would render the oral practice of the language almost impossible. A very useful and agreeable variation in the

teaching of Latin even, and I may say especially in junior classes is a little simple conversation in Latin, at any rate to the extent of simple question and answer. The Roman method of pronunciation is an effectual bar to any such easy and useful oral exercise. The Roman method of *speaking* the language, which renders the oral practice of the language difficult, has recommended itself to this Association; all that remains now to be done is to take steps to have the Roman method of *writing* the language introduced, which in a similar manner will render the *reading* and *writing* of the language almost impossible.

It is desirable in teaching Latin that we should make as realistic as we can the conditions under which the language was used; we should endeavor to reproduce as vividly as possible the spirit of antiquity; we should seek to draw the minds of our pupils from the present and endeavor to make them feel themselves in the presence of the past. To this end the Roman method of pronunciation has been introduced in Ontario; why not also the Roman method of writing? It will appeal to the eye in even a more striking and vivid way than the other does to the ear. The beginner cannot fail to feel, when he sees the ancient characters, that they are not the ones he has been accustomed to any more than he can fail to be perplexed and bewildered when he hears "ae" pronounced as he was accustomed to pronounce "i," and "i" pronounced as he was accustomed to pronounce "e."

It is a grand idea this, of the reproduction of the conditions of the past. I do not know that I should go so far, however, as to advocate the use of Roman libri or volumina or tabulae, or their calamus or stilus; nor do I believe that the practical results would repay the trouble and cost of dressing in the toga or pallium or sagum while teaching Latin. Indeed, I rather think that such a proceeding might have a distinct tendency to mar the even progress of instruction. But with regard to the use of the Roman style of writing there can be no doubt that it is indispensable to the proper appreciation of the Latin classics, for it is quite on a par in this respect with Roman pronunciation, the visual element in literature being no less real than the audible, so that if it is true that we cannot have a proper conception of the impression Virgil's poetry made on a Roman unless we hear it as he heard it, it is likewise true that we cannot have a true conception of the impression it made on him unless we see it as he saw it.

To be sure there are always persons who are more ready to see

defects than positive merits in any proposal of reform. Such persons may object that it will be difficult to determine the exact style of handwriting in common use in the classic period of Roman literature. I do not deny that there may be some little force in this objection. It will be difficult to determine the exact style of writing in use during the classic period. We cannot hope to attain perfection in this respect; we can only approximate the desired result. But when we compare the prospect of attaining to something like the style of Roman handwriting in the classic period with the likelihood of ever being able to know what the Roman pronunciation really was, we cannot fail to be struck with the difference. We have actual remains of Roman handwriting of the first century, on the walls of Pompeii for example; but nowhere on earth do there exist, or in the nature of the case can exist, any remains or traces of Roman pronunciation. Not one single sound can we be certain of; while as regards a number of the consonantal sounds and as regards all the vowel sounds, we must remain pretty much in the dark. Who shall say, for example, how a Roman of the classic period pronounced "c"? The authorities say that it is always hard like "k." But if it was always hard like "k," why should it so generally have become softened before "e" and "i" in the modern languages? *Civitas*, for example, becomes *citta* and *ciudad* and *cit  *. It is difficult to understand why a letter formed so far back in the mouth as "k" should uniformly resolve itself into sounds so far forward. If Quintilian says that the sound of "c" was always the same, no doubt it was always the same, but it need not have been equivalent to our "k." It seems not unlikely that the Latin sound of "c" was a harsher and coarser sound than that of our "k" just as the Latin "t" was harsher than ours.

The knowledge we are said to have of the sounds of the Latin letters is obtained chiefly from the statements of the grammarians as to how the vocal organs must be used for their production. For example, "i," they say, is pronounced with the mouth half-closed, and with the teeth gently pressed by the tongue. I have heard these same directions complied with in the process of producing certain inharmonious sounds in sleep. "U" consonantal is a source of great perplexity to the learned. There seems to be about the same certainty regarding the sound of the consonantal "u" as regarding the sound of a cuneiform character.

Is it not probable that there was considerable variation in the



pronunciation of Latin in Rome? To Rome thronged people from the Italian cities and from the provinces; it is not to be supposed that in a metropolis with so varied a populace there would be a uniform method of pronouncing Latin. The age was an age destitute of those influences which make for uniformity in ours; it was an age of no newspapers, few books, and little travel.

We can without much effort perceive the difficulty of acquiring the pronunciation of an ancient language by taking the case of a modern one. You have sometimes met persons who were self-taught in French, who had endeavored to acquire the pronunciation from the grammar and dictionary, and you can recall the success they made of it. It is not, I believe, regarded as an easy matter to learn to pronounce French properly even with a good master, and it is sometimes a matter of complaint in regard to the teaching of French in our schools that the pronunciation is very defective. Yet French is a living language and widely used. Now, we will suppose that in the course of four hundred years the French language shall have fallen into disuse, and that two thousand years from now French shall be studied as an ancient language. Then some Corssen or some Roby will appear to investigate the matter, and will declare in an authoritative manner what the sounds of the French letters really were. He will no doubt preface his explanations with the statement that according to the French method every letter always had the same sound. It would hardly seem to be a profitable expenditure of energy I think to attempt to acquire a Parisian accent under those conditions and at that date. Latin is now in a similar position and still we are periodically greeted with the oracular words, "The Roman method of pronunciation is recommended." But if the Roman method of pronunciation, why not also the Roman method of writing?

There may be those who will point out the lack of symmetry and grace that marks the Roman style of writing as compared with the modern, and this is certainly a serious objection to our adopting it. The book-hand of the Romans was not a thing of beauty and their cursive style was quite erratic. But that cannot consistently be regarded as an objection by the advocates of the Roman method of pronunciation. It cannot be denied that the Roman method of pronunciation is harsh and uneuphonious. The sounds are foreign and are two thousand years remote from us, and it is scarcely to be expected that although agreeable to Roman ears they should be anything but cacophonous to ours. Compare the

English pronunciation of "urbs" with the Roman (oorps,) and the harsh character of the latter is evident.

That there is an essential and radical difference between Roman speech and ours is evidenced by the fact that in Latin the accent is expressed by a change of pitch, while in English it takes the form of stress. The Latin accent is independent both of stress and of quantity. This constitutes a gulf between us and the Romans in the matter of speech that cannot be bridged. The bridge is being attempted, however, for this is what a leading light says: "Pitch must be strictly observed, the high-pitched syllables being all of one pitch and the low-pitched syllables being all of one pitch also, but about a musical fifth lower than the other, as if the latter were sung to the lowest note of the fourth string of a violin, and the former were sung to the lowest note of the third string." Thus we shall have the pleasing innovation of conducting our Latin classes with a violin obligato.

The attempt to resuscitate in a mechanical manner a dead and forgotten pronunciation seems the more uncalled for in view of the fact that about one half of the words in the English language are Latin words in a more or less pure form. Thus the pupil on beginning Latin has already a partial acquaintance with a large number of Latin words, which he is accustomed to pronounce according to the English method. He should be introduced to them in their new form in such a manner as will enable him to recognize them as readily as possible, not under the disguise of a foreign pronunciation. Knowing "oration," for example, he easily recognizes "oratio" (English pronunciation), but has no conception of what "oratio" (Roman pronunciation) may mean. "Causa" (English pronunciation) is at once received as an old friend, but "causa" (Roman pronunciation) is a stranger.

As regards practical uselessness Roman hand-writing and Roman pronunciation are exactly on a par. The only practical oral use that is made of Latin, outside the schools, is in the case of a number of quotations that are more or less familiar to the public ear. They are uniformly given according to the English pronunciation and would scarcely be recognizable under a Roman garb. "Viva voce" and "vice versa" are tolerably familiar to the public; what good purpose will be served by imposing "weewaw wohkay" and "weekay waresaw" upon our much suffering fellow-beings? What is the need of going out of our way to teach a method of pronunciation that cannot be employed on the few occasions when Latin is spoken?

Still another serious objection to the Roman pronunciation remains to be spoken of,<sup>1</sup> and that is that the distinction between long and short vowels is not sufficiently marked. If it is desirable that the quantities of the vowels should be learned, as it certainly is, then the English method of pronunciation is to be preferred, for, according to it, with some exceptions, the quantities are made sufficiently distinct. According to the Roman method "a," "i" and "u" have the same quality of sound, long and short, the difference being that the long sound is retained for twice as long a time as the short sound. This is a distinction that the pupil will find it difficult to make. A certain advocate of Roman pronunciation says, that until the pupil feels at home with the quantities he should observe the rule of beating time in reading, to make sure that the long syllables get twice the time of the short ones. I would suggest that the teacher obtain a metronome, to assist his pupils in distinguishing between long and short syllables, and especially to mark the difference in quantity between "a," "i" and "u," long and short, since their sound is identical. This feature of the Roman pronunciation is so totally at variance with the character of our speech that it is doubtful whether any serious attempt is made, by those who have nominally adopted the Roman method, to make the proper distinction between long and short vowels. The result is a kind of mongrel pronunciation in which the difficulty is avoided by substituting English sounds for the short vowels.

I have made a brief comparison of the practical merits of Roman pronunciation and Roman hand-writing. Neither has anything to recommend it, but fewer objections can be urged against the hand-writing, and for that reason, if it is necessary, as some appear to think, that an incubus should be laid upon the teaching of Latin, if it is to be the fate of Latin instruction, that, while other studies are progressing, it shall retrograde, so that the shell shall be considered more than the kernel, I would recommend that we adopt Roman hand-writing in the place of Roman pronunciation as the less of two evils.

*THE USE OF LANTERN-SLIDES IN TEACHING ANCIENT  
HISTORY AND CLASSICS.*

E. O. SLITER, M.A., KINGSTON.

A noteworthy feature of the newer school texts is the free use that is made of pictorial illustration. This is a step in the right direction; it is a recognition of the fact that pictures help the imagination, and are an assistance to a fuller sympathy with the author, and a clearer realization of the world with which he deals.

The case for the optical lantern as an aid to the teacher rests on the same basis. But the lantern has some advantages of its own; the range of illustration is wider, indeed, is almost unlimited; and further, the attention of the whole class can be directed to the one picture, or map, or diagram, while the teacher makes necessary explanations.

The teacher of literature or history should not be slow to take advantage of such an aid in his work—least of all the teacher of ancient history or the classics, for it is to him that the lantern can be most valuable: he deals with a world so unlike our own, in many respects, that he needs every available help if he is to make this ancient world a vivid reality to the student.

No one believes, of course, that to use the lantern in teaching ancient history is to teach it well, or that not to use the lantern is to teach it badly. The lantern-slide may be used wisely or unwisely, as may any other device, and its value will depend, to a large extent, on the manner in which it is used.

Properly used, it is a help in many ways. *First*, it interests, and with an interest that is perfectly legitimate. The teacher of any judgment will know how to make the hour with the lantern more than an entertainment and a playspell for his class. *Second*, it helps to fix details in the memory. A striking picture is easily remembered, and if its exhibition is accompanied by judicious comments, association will connect the picture with the events it illustrates, their causes and their consequences. *Third*, it helps the student to realize the classical world. Much will depend on the kind of pictures used. Fortunately there are many good ones available, from artists like Alma-Tadema and Sir Frederick Leighton—men whose work shows a knowledge of and sympathy with ancient Greece and Rome. *Finally*, though this perhaps is foreign to the subject, good pictures are an education in themselves.

Perhaps some who might be disposed to try the lantern are deterred by the idea that they would find difficulty in obtaining pictures enough to make it worth while. To these I would say that, without any special facilities, I have got together some six hundred slides suitable for this kind of work.

Given the pictures, slides are not difficult nor expensive to make, if one knows anything of photography; if not, it is easy to learn in these days. In this connection let me say that there are many practical details about the making and mounting of slides in which I might be of use to some of you. Any inquiries addressed to me, at the Kingston Collegiate Institute, I shall be pleased to answer to the best of my ability.

The slides which will now be shown are a rather miscellaneous selection, the idea being to show a few of the lines of illustration one may take, or some of the uses that may be made of the lantern in connection with ancient history and the classics.

#### I. CAESAR AND HIS ART OF WAR.

- |                          |                                 |   |
|--------------------------|---------------------------------|---|
| (1) Legionary.           | (10) Scorio.                    | (17) Bust of Caesar.                      |
| (2) Aquilifer.           | (11) Ballista.                  | (18) Caesar as Imperator.                 |
| (3) Standards.           | (12) Catapult.                  | (19) Vercingetorix.                       |
| (4) The Camp.            | (13) Plan of Agger.             | (20) Britons and Phoenicians.             |
| (5) Fortifying the Camp. | (14) Soldiers working at Agger. | (21) Map of Caesar's British Expeditions. |
| (6) Vallum and Fossa.    | (15) Works of approach.         | (22) Caesar's First Landing in Britain.   |
| (7) Musculus.            | (16) Caesar's works at Alesia.  | (23) Gerome's Death of Caesar.            |
| (8) Vineæ.               |                                 | (24) The Funeral Oration.                 |
| (9) Pluteus.             |                                 |   |

#### II. THE ROMANS AS BUILDERS.

- |                         |                                    |
|-------------------------|------------------------------------|
| (1) Aqueduct at Merida. | (7) Cloaca Maxima.                 |
| (2) " Catana.           | (8) Causeway, Appian Way.          |
| (3) " in Campagna.      | (9) Colosseum.                     |
| (4) " at Spoletium.     | (10) Trajan's Road at Orsova.      |
| (5) " Segovia.          | (11) Trajan's Bridge at Alcantara. |
| (6) " Nimes.            |                                    |

#### III. THE WAR WITH HANNIBAL.

- |                                  |                              |
|----------------------------------|------------------------------|
| (1) Hannibal crossing the Rhone. | (6) Hannibal's Stratagem.    |
| (2) } Alpine Scenery.            | (7) Ruins of Cannæ.          |
| (3) }                            | (8) Battlefield of Cannæ.    |
| (4) }                            | (9) " The Camp of Hannibal." |
| (5) Spoletium.                   | (10) Scipio Africanus.       |

## IV. ROMAN HISTORY.

- |   |                             |
|---|-----------------------------|
| (1) Map of Ager Romanus.                | (9) Flight of Caius Gracchu |
| (2) Caudine Forks.                      | (10) Cimbric Women.         |
| (3) Death of Archimedes.                | (11) Death of Cinna.        |
| (4) Roman Prisons. [of Greece.          | (12) Death of Cicero.       |
| (5) Flamininus Proclaims Liberty        | (13) Philippi—map.          |
| (6) Destruction of Corinth.             | (14) Octavia.               |
| (7) Fragment of S. C. de Bacchanalibus. | (15) Cleopatra.             |
| (8) Destruction of Carthage.            | (16) Agrippa.               |

## V. SCENERY—MAINLY OF ITALY.

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|------------------------------|-------------------------|
| (1) Mount Erete.             | (7) Baiae.              |
| (2) Lake Nemi.               | (8) The Digentia.       |
| (3) Turner's "Ancient Rome." | (9) Fall on the Liris.  |
| (4) Insula Tiberina.         | (10) The Modern Scylla. |
| (5) Roman Campagna.          | (11) Cascades at Tibur. |
| (6) Veii.                    |                         |

## VI. ATHENS.

- |                             |                                    |
|-----------------------------|------------------------------------|
| (1) Sunium.                 | (10) Philosophy (Raphael).         |
| (2) Map—Athens and Harbors. | (11) Plan of the Acropolis.        |
| (3) Piraeus, present day.   | (12) Bird's-eye View of Acropolis. |
| (4) Piraeus Restored.       | (13) West End of Acropolis.        |
| (5) Piraeus and Long Walls. | (14) Parthenon—West End.           |
| (6) Plan of Ancient Athens. | (15) Parthenon Restored.           |
| (7) Theseum.                | (16) Plan of Parthenon.            |
| (8) Temple of the Winds.    | (17) Athene.                       |
| (9) Grove of the Academy.   | (18) Nike.                         |

## VII. GREEK HISTORY.

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|-----------------------------------|-----------------------------------|
| (1) Marathon.                     | (8) Map—Syracuse and Harbors.     |
| (2) Thermopylae.                  | (9) Sea-Fight—Syracuse Harbor.    |
| (3) Region around Thermopylae.    | (10) Quarries at Syracuse.        |
| (4) Delphi and Parnassus.         | (11) Walls of Athens Destroyed.   |
| (5) The Rejoicings after Salamis. | (12) David's "Death of Socrates." |
| (6) Battlefield of Plataea.       | (13) Rout of the Ten Thousand.    |
| (7) Plain of Thebes.              | (14) Macedonian Phalanx.          |

## VII. HOMER, VERGIL, ETC.

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|---|--|
| (1) Vergil, Horace, Varius and Maecenas.  | (6) Leighton's "Helen of Troy."                      |
| (2) Giulio Romano's "Dance of the Muses." | (7) The Flight from Troy.                            |
| (3) Ulysses Feigning Madness.             | (8) Map—Wanderings of Aeneas.                        |
| (4) Abduction of Helen.                   | (9) Turner's "Ulysses Deriding Polyphemus." [mache.] |
| (5) Heroes of Trojan War.                 | (10) Leighton's "Captive Andro-                      |

*THE ACQUIRING OF A VOCABULARY.*

F. C. COLBECK, B.A., TORONTO JUNCTION.

While inflection and syntax present their difficulties to the student, difficulties that cost him much labor to overcome, yet the acquiring of the vocabulary is a more serious matter than mastering either paradigms or principles of syntax. What the teacher can do to help him in this matter is comparatively little, and consists chiefly in guiding him in the formation of correct habits. So heavy, however, is the burden to be borne, that if the teacher can ease its weight, even with one of his fingers, it should be done, and done gladly. In coming before the Classical Association with a short paper on "The Acquiring of a Vocabulary," I do not profess to come with any new revelation, but with the hope that an interchange of ideas will not be entirely without profit.

It is a far cry from the nursery prattle, with which we all begin to the lucid, vigorous and charming speech of a master. Though the few who come nearest to realizing the possibilities of a language have by nature capabilities for thought and expression greater than those of most men, still here as elsewhere it is true that

"The heights by great men reached and kept,  
Were not attained by sudden flight;  
But they, while their companions slept,  
Were toiling upward through the night."

In adding to their store of words, in learning to use them with an exquisite precision of diction that makes for effectiveness and charm, they have been careful beyond the general. They have given us works wrought with such care in detail, that they are often as stones "polished after the similitude of a palace." They have been almost as anxious to be sure of fitting words as to catch

"That light that never was on sea or land,  
The consecration and the poet's dream."

The literary masterpiece is to make not only for the delight of him who creates it, but also for the edification and joy of those

who can read it aright. The nearer they come to him in their knowledge of the materials with which he works, the more will he communicate to them of what he thought and felt. The reader who can fully appreciate literary art realizes that in a literary sense, as well as from a moral standpoint, "a word fitly spoken is like apples of gold in pictures of silver."

You remember how Wordsworth says of Peter Bell :

" A primrose by the river's brim,  
A yellow primrose was to him,  
And it was nothing more."

While in the "Intimations" he says of himself :

" To me the meanest flower that grows can give  
Thoughts that do often lie too deep for tears."

The rude and brutal carrier knew a primrose when he saw it. What a difference there was, though, between him and the sensitive poet in reading this page of nature ! The difference between readers of printed books is quite as great. Not everyone who has eyes sees, nor does everyone who reads read. A reader may know that a word means so-and-so, but that used in a certain context it is exquisite as a rare gem in the chastest of settings is something he may be quite incapable of feeling. He passes by with indifference an epithet that to another reader suggests more than a page from a common pen could express. We cannot all be great writers in prose or verse, and we may lack the insight and imagination to fully comprehend such ; but we may be able to follow at no great distance the thought of those who are, and to enter into their feelings, provided we can make our own their words, with all their shades and subtleties of meaning.

The teacher of English knows to his sorrow how lamentably weak is the hold the average High School student has on the vocabulary of his mother tongue ; and how difficult it is to bring him to realize his weakness, or to make earnest, intelligent, painstaking and unremitting effort to remedy it. He enters the High School with the 25 cent pocket dictionary he bought when a pupil in the third book grade in the Public School, or the bulky, imposing "Original Edition" of long ago, sold over some bargain counter for an odd number of cents. He is willing to buy grammars, histories and algebras, and expects to do so ; but to spend even \$2 for a concise Imperial or a Student's Standard is something that he, in



many cases, cannot be persuaded to do. He goes on with the old one; uses a school dictionary occasionally; comes into class often to conjecture the meaning of new, perhaps archaic, words—and to fret the soul of his teacher.

His writing makes his weakness yet more apparent. He lacks the words he should use; he uses those he should not; he uses them with meanings that are not theirs; with meanings akin or quite foreign to the true ones. Allow me to illustrate from my own experience how bad this may be. In January my Junior Leaving class was reinforced by a young man who had been teaching for three years in an adjacent county. Shortly after joining the class he wrote an essay on Deloraine's ride to Melrose. On one page of that essay all of the following expressions occurred: (a) a *rugged rill*; (b) I allowed my steed to *replenish his breath*; (c) after a short *wind* I spurred him on; (d) this part of my *journey* was noted for *inroads of the enemy*; (e) I looked to my sword and *defences*; (f) I was *up against* a most *trying event*; (g) fording such a *torterous stream*; (h) slaughter *between* the Scotts and Kerrs.

The young man had told me that he had *not* been studious during those years of teaching. That was doubtless a true statement. This is an extreme case. If, however, the students of our lower forms entered on the study of another language with a wider and more exact knowledge of the vocabulary of their own, it would make their work in that other language easier, pleasanter and more profitable.

The average student entering a High School has a rather narrow vocabulary; but narrow as it is, it contains many words he does not fully understand. He is like an unskilled carpenter whose kit lacks some very necessary tools, though it contains more than he yet knows well how to use. Still he has a more or less exact knowledge of many words; and this knowledge may be of great service to him when he comes to acquire the vocabulary of another language, especially if he has learned at all to notice the relationship existing between the members of groups of cognate words. I studied Hebrew once upon a time for a few months. The little I ever knew of it is forgotten. One thing, however, I hold in lasting remembrance, *i.e.*, the difficulty I experienced, not in syntax, but in acquiring a vocabulary. The words were all really new and strange; they suggested nothing seen or heard before. The tax on the memory was great. There was at first none of that relief which comes from a recognition of relationship with words already known.

How different is the beginner's experience in Latin. His interest is aroused when he is brought to see that these new words are, many of them, unmistakably akin to words he already knows in English. It is like going to London or Paris among utter strangers and meeting the cousin of one's next door neighbor.

Mr. Jones is personally a stranger, but the fact that he is the cousin of Mr. Jones at home, and resembles him in face and figure, makes him seem like an old acquaintance. It is very pleasant to meet him. Some such pleasure comes to the young student when he sees that many of the words of this ancient and so-called dead language are unmistakably akin to some of his closest acquaintances among words. As said before, they become at once an object of interest to him. It is no difficult matter to secure his active co-operation in making short lists of words cognate to Latin words met. He will enjoy the exercise. That is itself "a consummation devoutly to be wished." A pleasurable stimulus is better than a painful one from his standpoint—it is from the teacher's also. What the latter has to dread, next to positive dislike, is the "inertia of indifference." Arouse and hold the interest and the battle is half won; conditions are favorable for observation and memory. He will easily remember the Latin words for which he discovers such relations, and looking for the latter, ransacking his storehouse of words, helps his English, and develops the power of mastering at will the words he has acquired. Too often a boy's words, like the utensils of the untidy housekeeper, cannot be readily found when needed.

I have made the statement that the beginner, the young beginner, is introduced to Latin words whose family likeness to old acquaintances of his is unmistakable. Let me illustrate this by a few examples.

In the first lesson in the Primary Latin Book (the one I use), fifteen verbs are introduced. Over half of these furnish good material.

(a) Surely *navigo* is the forbear of *navigate*, *removeo* of *remove*, and *obtineo* of *obtain*, though the latter, like the Normans, shows the effects of a French sojourn.

(b) Then others suggest cognate words belonging to other parts of speech :

<i>convoco</i> , <i>convocation</i> ,	a calling together ;	that called together.
<i>impero</i> , <i>imperative</i> ,	expressing command.	
<i>teneo</i> , <i>tenacious</i> ,	inclined to hold.	
<i>vulnero</i> , <i>vulnerable</i>	capable of being wounded.	

The second lesson introduces nouns, eight of them :

(a) *barbarus* is *barbarous* and *barbarian*.

*victoria* is *victory*.

(b) Again :

*copia* suggests *copious*.

*fuga* " *fugitive*.

*nauta* " *nautical*.

*socius*, not quite so directly *society* and *social*.

*turma* does not call up any cognate word.

*legatus* is given, meaning *lieutenant*, and does not suggest any word of parallel meaning, but as early as the fifth lesson the word occurs again, meaning *ambassador*. This word has *legate* as synonym, and this has *legatio* as cognate. It would, perhaps, have been as well to have introduced the word with this meaning first, especially as it comes nearer the derivation, as near in fact as possible to the meaning of *lego*.

The adjective is introduced in the tenth lesson. Of the eleven adjectives, seven suggest cognates, very common, and found in the vocabulary of the young :

*maritimus*, *maritime*.

*adversus*, *adverse* and *adversity*, the experience of the *unsuccessful*.

*asper*, *asperity*, *asperate*.

*liber*, *liberty*, *liberate*.

*magnus*, *magnify*, and surely *magnate*.

*altus*, *altitude*.

*latus*, *latitude*.

*Altitude* and *latitude* correspond, of course, in form and meaning more exactly with *altitudo* and *latitudo*, which occur before long.

Now we have *derivation* : one Latin word derived from another already known. Very early, indeed, derivation becomes helpful, stimulating interest, helping the memory. *Moveo* gives *permoveo* and *removeo* ; *voco*, *convoco* and *evoco* ; *venio*, *ventito* and *pervenio* ; *cipio*, *recipio*, which he must notice is not *receive*, but is *retake* or *get back*, and *accipio* is *re-ceive* or *accept*. There are *locus* and *loco*, *pugna* and *pugno*, *equus* and *eques*, *vir* and *virtus*, *silva* and *silvestris*, *latus* and *latitudo*. These are a few examples met with at an early stage in the beginner's career. Here we have sameness, and difference ; a new word reminding one of the old, yet with an individuality of its own. Prof. Bain says : "The methods to be

pursued in attaining the heights of general knowledge are framed by the circumstances attending the detection of Like in the midst of Unlike." There is truth in these words that the teachers of language, as well as those of other sciences, do well to remember.

In Greek the beginner does not find so large a percentage of the words manifestly related to words he knows in English. Of the 108 words found in the first fifteen lessons of "The Beginner's Greek Book," only some nine, I think, readily suggest English cognates. Of the same 108 words, no less than 19, however, are derived from others already met. There are twenty-eight then, over one-fourth of the whole, in the acquiring of which he has the help of previous knowledge.

You are familiar with the lists of cognate words, in Greek, Latin and English, Prof. White introduces sometimes at the end of a lesson. Under *καλ* (call), for example, he gives eleven Greek words, six Latin and four English. These lists are suggestive. Perhaps the authors of our Latin texts for beginners might with advantage have introduced a similar list occasionally.

As he advances, the student will find derivation a great assistance, if he has learned to be observing and to make the most of it. When new words crowd thick and fast upon him, as they often do, in Homer for example, he has reason to be glad that, in Greek, derivation counts for as much as it does.

I submit a list (A) of words put on the blackboard by a member of the class reading the "Odyssey." It was written as a list of new words occurring in a lesson of some thirty lines. The young lady making the list was asked to mark with one asterisk the words whose derivation she had arrived at by inspection before looking them up; with two asterisks those whose derivation *from words already known* she could now give as a result of consulting her dictionary. I think that the words underlined would have been marked had not either her memory or observation been at fault. Just about one-third of the new words are marked, three in each class. Derivation by inspection, a most valuable exercise, can be promoted by sight passages chosen with it in view.

The other list (B) is made up of new words occurring in another lesson of about thirty lines. This time the list is longer, yet in reality not so formidable as the other. The words marked with an asterisk this time are those *one or more of whose elements* the student considered *new*. There are only nine, you notice, whose derivation was not known; and, in the case of the one underlined,

its presence in the list was owing to a failure to recognize the dialectic variation of  $\epsilon\upsilon$ . I might say that these lists were made in class without any special warning.

It is hard to over-estimate the value of derivation. Even when the idea is somewhat remotely suggested, as in the case of  $\delta\mu\alpha\delta\omicron\varsigma$  from  $\delta\mu\omicron\varsigma$ , the interest is all the keener, perhaps, for that, and the memory the more likely to be retentive.

This paper has already attained a length much exceeding what I contemplated when I began, and I must hasten to a close. While many new words are cognate to words known, others are not. They must be mastered too. They present the greatest difficulty. What can the teacher do? But little. However, he must see that attack is concentrated on them, and is incessant. I have already mentioned, incidentally, putting lists of new words on the board. This can be done before the reading of the lesson in class, or after; the meaning may be called for with the context and without it; they can be required in very short sentences for re-translation at sight. If such exercises are brief and varied, I do not find them irksome to the class. The fact that to read or write they must have words, is kept ever before them. To have them they must learn them, and there is no "more convenient season."

We all know that the vocabulary is a great tax on the student's energy and time.

I have asked as to the proportion of time given to preparation required for learning new words. Sometimes it is 25 per cent., sometimes even 50 per cent.

As I said at the beginning, I realize that the teacher cannot help here as he can in connection with other phases of difficulty. Nevertheless he should do, and do well, what he can. As to the nature and extent of that possible help I wish to learn; hence this paper to introduce the subject.

## LISTS.

## "A."

μαια  
\*αλητευει  
\*αχρημοσυγη  
προσπτυξομαι  
σιωπησειαν  
\*μυθιται  
θελγοιτο

## "B."

καταθανε  
ατυμβος  
\*ηυκομοιο  
νεκνων  
αμενηνα  
\*καρηνα  
\*ασφοδελον

## "A."

\*\*κλισιη  
 διηνυσεν  
ποτιδερκεται  
 δεδαω5  
 ἱμεροεντα  
 βροτοισι  
 ἀμυτον  
 μεμαασιν  
 ναιεταων  
 προπροκυλινδομενος  
 στευται  
 \*\*κειμηλια

## "B."

\*ἐπαντλει5  
 αντικρυ  
 ἐπισημους  
 \*νεωλκησαι  
 \*διαφυξαι  
 εὐπύργος  
 \*ἀποπνιξαι  
 μεγαληγορια  
 ευρυαγυια  
 εὐκτιμεναι  
 ἡμιθνητα  
 ποδιαιον  
 \*αροτρῳ  
 εὐθτισαντες  
 νεκροστολων  
 \*ὠνάμην  
 κακοδαιμονων

*METHODS IN GREEK.*

J. F. THOMPSON, B.A., SIMCOE.

For many years Greek has received no inconsiderable degree of attention as a fairly prominent subject on the Curricula of our High Schools and Colleges. To-day the number of those studying it is rapidly approaching the vanishing point. Strange and absurd impressions, or prejudices, with regard to the study have prevailed, and do prevail, not only amongst the general public, but even amongst those who have fulfilled the requirements of a Classical Curriculum. With regard to its difficulty, the prevailing impression undoubtedly is that nothing is more difficult; with regard to its utility, that nothing is more useless. Also that it is a study necessarily associated with all that is grave, sombre and forbidding, but having nothing in common with youth, light-heartedness and gaiety; to many, indeed, its chief and almost only association being an ecclesiastical one.

Now the question naturally arises, how is it possible that such a prejudice should become so thoroughly established, so deeply rooted? How is it possible that those things which pertain to the Greek people, whose lives were spent in the open air, who were the freest, the most light-hearted, the most care-free, the most pleasure-loving, and in our sense of the word, the most irreligious of all people, who certainly did not ruin their eyesight over books, whose education was acquired by constant bodily training and daily out-of-door contact with their fellows, and who would certainly have ridiculed beyond measure the picture of the ordinary Greek devotee of to-day; how is it, it may be asked, that the things pertaining to this people should be to-day popularly associated with musty studies, gloomy libraries, decrepit old age, with gravity, seriousness, moroseness, and with all that is gloomy and unattractive? Were the child-like, but intensely interesting, narratives of Herodotus intended for the thoughtful and sombre seer alone? Were the sparkling gems of Theocritus, rich as they are in human interest, intended for the gloomy recluse who has no part in life outside the walls of his library? Fancy the comedies of Aristophanes being regarded as essentially adapted to the perusal of the ecclesiastic and the stern moralist! Even when we come to authors who wrote on deeper themes, what modern philosophic or economic

work is written in so easy or so entertaining a style as are the dialogues of Plato? Greek should rather be regarded as a language used when the world was young and full of the vigor of youth, a vigor which is reflected in almost every page of its literature; while in the writings of to-day are reflected the hopelessness and despondency of age. To the former we turn, as an aged man to the records of his long-past youth, to renew, if but for a time, the brightness and vivacity of early days.

Now for the prejudice spoken of above, and for the deep-rooted dislike entertained towards Greek even by those who have studied it, what can be held responsible if not the ordinary methods of teaching the subject? For that the majority of Greek students entertain no love for their study we are all painfully aware; so that we may be fairly justified in ascribing this result to the influence which the study of Greek has had upon them, *i.e.*, to our own methods of teaching the subject. On our Curriculum Greek is in a somewhat different position from Latin. The latter is taught primarily on account of its peculiar linguistic relation to our own tongue; the former primarily and chiefly for its literary value. But during the whole of his course the Greek student can hardly be said to even touch Greek literature. What he is taught is a collection of dry facts about the language, *i.e.*, its grammar, but not the language itself; and without a knowledge of the language an appreciation of its literature is impossible, for the reading which he actually accomplishes has no better result than that of illustrating grammatical rules; for our student does not read his texts in Greek, but merely looks at the words and pronounces English words in their place, which really amounts to reading from a translation. No person understands a language until thoughts expressed in that language appeal to him directly, and not through the intermediary of even a mental translation. Consequently, instead of teaching the Greek language and through it the Greek literature, what we do teach from beginning to end is merely the Greek grammar. And grammar is not a necessary antecedent to the knowledge of any tongue. What part had the grammarian in the formation of a language? In fact, the best linguists are generally those who have mastered a language without reference to its grammar.

Now, if we could postpone the teaching of the grammar, as such, whether etymology or syntax, until the pupil has made considerable progress with the language itself, I think that the dislike with



which Greek is regarded would, in a large measure, disappear. For this purpose, after the initial difficulty with regard to the alphabet has been overcome, I would select some easy narrative prose work, such as the Gospel of St. John in Greek, or the Greek paraphrase of the first book of Cæsar's *Bellum Gallicum*, and conduct the first lesson somewhat after the following manner:—

As nearly every pupil commencing Greek has already made some progress in Latin I would first inform him that Greek has the same noun-cases as he has already met with in Latin, with the exception of the ablative, but that the Greek verb presents some new features. I would here draw a scheme of the Greek moods and tenses, as follows:

Indicative. Subjunctive. Optative. Imperative. Infinitive. Participle.

Primary  
Tenses, { Present.  
Future.  
Perfect.  
Future-Perfect.

Secondary  
Tenses, { Imperfect.  
Aorist.  
Pluperfect.

Here we have a new tense, the aorist, and a new mood, the optative. I would explain that the aorist is the Latin indefinite-perfect, while the Greek perfect is the true perfect of Latin; and that the Greek subjunctive corresponds very largely to the Latin present-subjunctive, whilst the Greek optative is very nearly equivalent to the imperfect-subjunctive in Latin. I would say that, roughly speaking, only in the indicative mood and in the participle do the different tenses denote any distinction of time; that in the other moods, only the Present, the Perfect and the Aorist tenses are regularly found, but do not in these moods denote a distinction of time, but rather of manner; that when found in these other moods the present denotes a general action, the Aorist a particular, and the perfect an emphatic action; while, when used in the infinitive mood, these same tenses sometimes denote a distinction of time, as in the indicative and participle, and sometimes a distinction of manner. I would also draw careful attention to the distinction existing between primary and secondary tenses.

After the above preliminary remarks on the verb, would come our first lesson in the actual using of the Greek tongue; and in this and all subsequent lessons belonging to the primary stage of

the pupil's progress the first appeal should be to the ear, the second to the eye. I would meet the class without a book, and insist on all class-books being closed. I would then enunciate clearly and distinctly, pausing slightly at the end of each word, the first verse of the book we should be intending to study. (I will here illustrate from the first book of Xenophon's *Anabasis*, the text-book in common use.) *Δαρείου καὶ Παρυσάτιδος γίγνονται παῖδες δύο . . . ἀθροίζονται*. I would next repeat the same two or three times, but pronouncing each word separately, having different ones in the class repeat the same after me, until all should become fairly familiar with the sounds of the different words. I would next give the class a word-for-word translation of the same, *e.g.*, *Δαρείου* = of Darius, *καὶ* = and, *Παρυσάτιδος* of Parysatis, *γίγνονται* = are born, etc. Then repeat the same, with different members of the class repeating each word after me. Next the different elements of each word should be pronounced separately and a meaning assigned them, as *Δαρει* = Darius, *ου* = of, *Παρυσάτιδ* = Parysatis, *ος* = of, *γίγν* = the idea of production, or birth, *ο* = a connecting vowel, *νται* = 3rd plural ending, *παῖδ* = son, *ες* = nominative plural ending, showing that the noun to which it is attached is subject of some verb. After this the class should repeat the same until they can sound the different parts of a word, and assign the proper meaning to each.

The class should next be expected to give the Greek equivalent to the English words pronounced by the teacher, as, of Darius = *Δαρείου*, are born = *γίγνονται*, etc., until they can without difficulty render the English into Greek *viva voce*.

Next should come the appeal to the eye. The class should now open their books, read and translate the Greek text, writing the translation as well, after which they would be expected to re-translate what they had written into Greek. The work should then be summarized on the board, the words being carefully divided into their elements, with the meanings written beneath, as follows:—

<i>Δαρεί-ου</i>	<i>καὶ</i>	<i>Παρυσάτιδ-ος</i>	<i>γίγν-ο-νται</i>
Of Darius	and	of Parysatis	are born
<i>δύο</i>	<i>παῖδ-ες</i>	<i>πρεσβύ-τερ-ος</i>	<i>μὲν</i>
two	sons	(the) elder	on the one hand
<i>Ἀρταξέρξ-ης</i>		<i>νεώ-τερ-ος</i>	<i>δὲ</i>
Artaxerxes		(the) younger	on the other hand
	<i>Κύρ-ος</i>	<i>ἀθροίζ-ο-νται</i>	
	Cyrus	(they) assemble	

In a lesson on this verse the following points would have been brought out, summarized on the board, and entered by the pupil in a special note-book.

The Noun.		Singular.	Plural.
Nominative endings		ος, ης.	οι, ες.
Genitive	"	ου, ης, ος.	ων.
			Dual.
Accusative	"	ον, ην.	ε, ω.

#### The Adjective.

The suffix, *τερος*, to which are added the case-endings of the noun, denotes the comparative degree, and is generally preceded by the vowel *ο* or *ω*.

#### The Verb.

In Greek we have a new voice, the middle, with the same forms (except in the future and the aorist) as the passive, but denoting that the subject is acting (*a*) for his own advantage, (*b*) on something belonging to himself, (*c*) on himself.

#### PERSONAL ENDINGS.

##### Primary.

3rd sing. mid. *ται*.

3rd plur. mid. *νται*.

3rd sing. act. *ε* and *ει* (result of contraction).

##### Secondary.

3rd sing. mid. *το*.

In the indicative mood secondary tenses are generally indicated by the fact that the first letter of the verb is either a long vowel (*e.g.*, *ἡσθευει*), or the letter "*ε*" (*e.g.*, *ἐρύχανε*).

In the next and all subsequent lessons the pupil's already-acquired knowledge should be carefully drawn upon. As the teacher reads a verse for the first time, the pupil should be on the alert for any word with which he is already familiar—also for noun and verb endings, carefully interpreting these last. The lesson should then proceed as before, the new words and the new endings being added to the pupil's former store.

In this primary stage of his progress the pupil should become thoroughly acquainted by observation with the different noun and verb endings, with the formation of the comparative and superlative degrees of the adjective and adverb, with the use of

the participial suffixes *ντ* and *μεν*—noticing that the different tenses are denoted by the vowel preceding the suffix—with the leading peculiarities of the different tense stems, with the ordinary rules for vowel-contraction, and with the fact that original inter-vocalic *σ* disappears, while original inter-vocalic *σσ* becomes *σ*. (This will explain the future stem of liquid verbs, that of *μένω* being *μενεσ*, and also the different case-forms of such words as *ὄρος*, gen. *ὄρους* = *ὄρεσος*, dat. pl. *ὄρεσι* = *ὄρεσσι*, etc.) He should notice the similarity in the inflection of the present tense and of the second aorist; also that the future-perfect is merely a reduplicated future, while the ordinary reduplication is the mark of the perfect and pluperfect tenses. And just here it might be remarked that the pupil should be guided to associate with each particular verb-stem its proper meaning, without referring it to a series of stems, *i.e.*, without learning (at least in this stage) the principal parts of the verb, *e.g.*, “*λάβ*” is a second aorist stem and means “took,” “*λέλοιπ*” is a perfect stem, meaning “have left,” without a necessary reference to *λαμβάνω* or *λείπω*, *i.e.*, the meaning of each verb-stem should be learned by itself as it is met with, and into this meaning, of course, a time idea must enter.

Now, in defence of such a method, we may say that it at least copies nature, the ear being appealed to before the eye. Again, the interest of the pupil is kept constantly aroused. When the teacher enunciates a new sentence for the class, each pupil is on the alert to see who will detect a word or an ending which has been already met with; and while the process of assimilating new material is going on, there is no strain on the optic nerve, which, though it may seem a trivial matter to mention here, is not without its influence in creating the feeling of effort in connection with knowledge-acquisition, and this feeling, in young pupils at least, is a decided obstacle to the creation and maintenance of the interest-feeling; in short, there is nothing headachy about such a process; the pupil's attention is constantly directed to the living teacher, rather than to the dead book.

The most constantly recurring words in any language are likewise the most irregularly formed words in that language. With these, which, when taken in connection with the grammar, are the hardest to teach, the pupil soon becomes fairly familiar, as he meets them constantly in actual use. Again, some noun and verb endings are met with very often, others scarcely ever occur; but when these are learned formally in paradigm fashion, equal attention is

given to the frequently-recurring and to the exceptional forms, while by learning them according to the above method, the degree of attention bestowed upon different inflectional forms is in exact proportion to the frequency with which they are used.

The difficulty which most pupils experience in passing from the short sentences of the primer to the involved sentences of continued prose narrative is, perhaps, due to the fact that the tendency of the classical languages is toward the complex sentence; and the difference between a complex sentence and a simple sentence is so great that it is quite possible that a training in the latter rather unfits a person for dealing with the former. By proceeding according to the method we have outlined, the pupil's energies would be directed from the first to dealing with sentences such as the Greeks actually used.

The above would constitute the first stage in the pupil's progress, during which he should become acquainted with the general characteristics of a Greek sentence, with all those constantly recurring words, which form the majority of words in most sentences and which, under an artificial system, are the hardest to teach, and under a natural system the easiest to learn; and also with such a *copia verborum* that from sixty to a hundred per cent. of the words found in any new sentence will be words with which he is already familiar.

With regard to what I may call the subsequent stages of the pupil's progress, the limits of this paper forbid me to speak at any length. Briefly speaking, they would be somewhat as follows: first, a course in sight-reading, and writing of continued prose based upon the extracts already read, and having as its object a thorough mastery of Attic narrative prose; and then a course in scientific grammar, not, of course, intermitting the sight-reading. Now, I by no means advocate the abolition of grammatical studies, merely their postponement until the pupil has made a reasonable acquaintance with the language itself. The scientific analysis of an already-mastered language is interesting and easy for the pupil, for he then recognizes facts with which he is already familiar, but properly analysed and classified; and a few short weeks suffices for an intelligent mastery of what, if presented out of its natural place, would require almost as many weary years to be even faintly and imperfectly understood. So this stage would be devoted to intelligent, systematic and thorough grammar-study. The remaining stages would deal with the student's study of different authors

arranged in an ascending series of difficulty, and would, of course, fall within the province of the University rather than within that of the High School.

In conclusion, it might be remarked that one obstacle to the adoption of such a method in this Province is to be found in our system of arranging our High School time-tables. These, with the lesson-periods in the lower forms very short, and with long intervals between each, but increasing in length and occurring at more frequent intervals as the forms ascend, are well enough adapted for mathematical and scientific studies, which present their easiest side first; but not for language studies, the hardest and least entertaining part of which comes first, the work becoming of constantly decreasing difficulty as the student progresses. Of course lesson-periods differing in length and frequency for different subjects would cause a certain amount of confusion and annoyance in the work of our schools. Perhaps the Germans are right in disassociating the two groups of studies.

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*SHOULD GREEK AND LATIN BE RETAINED AS SUBJECTS  
IN OUR SECONDARY SCHOOLS?*

JOHN HENDERSON, M.A., ST. CATHARINES.

There are some questions that constantly return. They resemble some of the comets that visit our solar system. At first they seem small and insignificant, but increase in interest, afterwards pass away, and for a time are unheard of and, perhaps, forgotten altogether, only to appear again. Or, to change the simile, these questions are like some of the rivers of Greece that flow along their channel for a distance, then suddenly disappear in the ground and again rise to the surface in another part of the country. The question of the position of Greek and Latin in our schools has been discussed over and over again, and when it comes up the same arguments will be advanced, the same facts will be stated, and the same fallacies refuted. I have, therefore, to say in the beginning that, no doubt, many of you will find in this paper to-day arguments and replies with which you are quite familiar.

In Ontario the study of Latin, and especially of Greek, has had a checkered career in our schools. Latin has always been a compulsory subject for matriculation into our universities, but the vicious system of options, introduced into Toronto University\* in 1885, has directly caused Greek to suffer. Within the last seven years (since 1894) Latin has been a compulsory subject in Ontario for Teachers' Certificates (Junior Leaving and Senior Leaving), and since that regulation was passed we have had a Latin revival, so far as numbers studying the subject were concerned, but the revival has not been of the sort that tends to make Latin scholars. According to the last report of the Minister of Education, out of

\* Subjects for matriculation in Toronto University :

1880 ; Latin, Greek, Mathematics, English (with History) and Moderns (optional).

1885 ; Latin, Greek (or French and German), English (with History), Mathematics, Science (optional).

1890 ; Latin, English (with History), Mathematics, with the following options : (a) Greek, (b) French and German, (c) French and Science, (d) German and Science.

1895 ; Latin, English (with History), Mathematics, one modern language with options (a) Greek, (b) the other modern language and Science.

1900 ; Latin, English (with History), Mathematics, with two of the following options : (a) Greek, (b) French, (c) German, or (d) Science.

21,723 pupils in our Secondary Schools there were 18,073, or 85%, taking the subject, an extremely large percentage. There are, however, indications that a movement is on foot to do away even with Latin for the requirement of Teachers' Certificates. The position of Greek is, however, very different. The system of options directly tells against it. The language is a difficult one; it is easier to get a pupil up in French, German or Science than it is in Greek, and as the principle of doing things with the least exertion is deeply rooted in humanity, the average pupil obeys the principle and gladly adopts the easiest method to obtain his matriculation or certificate. Out of 21,723 pupils in our Secondary Schools only 853, or 4%, are taking Greek. From our High Schools Greek is practically being banished, and even in our universities the Greek scholar will soon be a *rara avis*. The language of the oldest democracy in the world is not democratic enough for the modern educational Philistine.

The vicious system of options introduced into the curriculum of our High Schools in 1885 has been the *fons et origo malorum*. If I may be allowed a digression, I would say that no options should be allowed in our High School course of study. The general culture of the student should be aimed at, and this can only be obtained by laying a good foundation in subjects that admittedly form the basis of a liberal education. It is only when such a basis has been laid that the work of specialization can efficiently be begun. I may also point out in passing that we cannot substitute French for Latin, for the very obvious reason that French and Latin are really the same thing at different stages, and that the training given by the one is similar to that given by the other, only in an inferior degree. Without Latin, French is historically unintelligible. The study of the one is supplementary to that of the other.

Now let us examine a few of the arguments made by the opponents of classical study. In the first place it is said, and I admit said with a great deal of truth, that many boys spend their time on Greek and Latin for which they care little, and in which they make so little progress that they soon forget the little they have learned, and that much of this valuable time could be spent to better advantage in other studies. I think that I have stated the case of my opponents fairly. Now this argument, if it has any value at all, applies with equal force to every other subject in the whole curriculum. It is quite true that the amount of Greek and



Latin that some boys learn is of little value—I was going to say, of no value whatever, but I will not do that, for all knowledge is of value provided a pupil has acquired it in the right way. But the argument that is used by our friends who object to classical studies might be applied with equal force to every other subject, say arithmetic. With the exception of the four simple rules, and, perhaps, fractions, what part of arithmetic is ever used by the ordinary man ? The same question might be more pertinently used in the case of Algebra, Euclid, Trigonometry, or Science. How many of our boys and girls, after spending weary hours in trying to fathom the mysteries of quadratic equations, geometrical problems, and chemical formulæ for which they have little aptitude and in which they have less interest, gladly forget all these as soon as they have passed the examinations ? If Greek and Latin were dropped to-morrow from the curriculum of studies and all the pupils of a class were turned, say, to the study of Chemistry, we should probably find quite as many of the pupils, but not the same pupils, who would make as little progress in their Chemistry as they had made in their Latin and Greek. We are all painfully aware that in every school there are laggards, scholars who will do no more than their allotted task, and will even do that grudgingly ; but it surely does not follow as a sequence that the interest of the bright boy or girl who has an aptitude for languages should be sacrificed merely because dull boys in the class have no taste for these studies. My experience, after nearly thirty years of teaching in our High Schools and Collegiate Institutes is this, that the pupils who excel in Greek and Latin often surpass the other pupils in their own special studies if they devote their time to them.

In the second place, we often are met with this argument, which, though it has again and again been refuted, is still used by some. We are often told that the study of English in itself will do all that is claimed for Greek and Latin. As a proof of this we are reminded that the Greeks, who admittedly excelled in literature and philosophy, studied no language but their own, and the conclusion is immediately jumped at that it was by cultivating no other language that the ancient Greeks attained their pre-eminence in literature and philosophy. This argument is as absurd as the foregoing. We might point out, as has been often done by others, and notably by Professor Morris, of Yale :

First, that the Indians of North America, the Eskimos of Labrador, and the Hottentots of South Africa, knew no language but

their own, and yet they have never developed either literature or philosophy.

Second, that the Greek language attained its perfection in the age of Demosthenes, say 340 B.C., and the grammatical study of Greek began in the time of the Alexandrian grammarians, that is, fully a century later. It follows, therefore, that all the greatest writers of Greece—Homer, Pindar, Æschylus, Sophocles, Euripides, Plato, Aristotle, Demosthenes—did not make their language by studying Greek alone, or, in fact, by studying it at all.

Thirdly, we might answer that no language is consciously made by the people who use it. Language is an unconscious growth, not a manufactured article. Men must first think clearly before they can express themselves clearly, and the language of Greece is what it is, the noblest expression of human thought, not because the Greeks studied no other language, but because the men who used it as the vehicle of thought were themselves deep and clear thinkers. We shall have to seek for other reasons, if we can find them, to account for the expressive power of the Greek language. It seems to me as impossible to account for the fine æsthetic taste and speculative genius of the ancient Greek as it is to account for the practical genius of the ancient Roman for law and government, or for the genius of the English nation for colonial development. All that we can say is, that these nations have in themselves the essential germs that developed into qualities for which they have gained their pre-eminence among the nations of the world.

Now let us examine what advantages the study of Greek and Latin confers. When a boy begins a language, his first concern is to get a good vocabulary. Every teacher of Greek and Latin will draw the attention of the pupil to derivative words in English. Does not this acquisition of a vocabulary cast a flood of light on the meaning of English words? This, I contend, is the best method of making the teaching of Greek and Latin eminently practical even in the initial stage of the study. The pupil increases his vocabulary of English, he gets a deeper insight into the meaning of words, his mental vision is enlarged, and he gains power in expression. Now, all these advantages, I hear some one say, can be easily got by learning a few roots, and thus we will save time while we arrive at the same result. I very much doubt this conclusion. My experience with a large number of scholars has been this, that a scholar who has studied his Latin and Greek will grasp

the meaning of English words derived from these two languages, and will distinguish the shades of their meaning much more readily than the scholar who has only a smattering knowledge of root words. It seems superfluous to point out that a very large percentage of words is derived from Latin, and that nearly all our scientific terms are borrowed from Greek. To one who is about to take up a scientific course, a short and safe cut is to obtain, in the first place, a good working knowledge of Greek. There can be no doubt about this fact. Take any medical book, any work on Geology or Physics, and open it at any page, and you will see the force of this contention. Much of the difficulty of Science disappears to one who has a knowledge of its nomenclature. The same may be said with regard to Theology. If we leave out Law, the stock vocabulary of which is English, or English with Latin elements, there is not one of the learned professions that does not include words formed from Greek elements, and the technical terms used in these professions have an abiding meaning to one who knows Greek. To a student, on the other hand, who knows only a few Greek roots, the terms will not be clear, for a vocabulary becomes fixed only in the mind by constant repetition and not by memorizing a few isolated root words. Thus, even in the initial stages of the classical languages, the student receives a practical benefit even if he gets no further than acquaint himself with a good vocabulary, and even though he never reads a classical author.

After a pupil has passed the elementary stages and acquired a knowledge of inflections, the advantages of the study gradually widen. He now enters upon the important stage of translation. In doing his task the pupil has a grammar and dictionary on the one hand, and his own ability on the other. The real struggle now begins. His accuracy of knowledge is tested by his grammatical skill in unravelling difficulties of the author he is translating. He is obtaining the best training he possibly can obtain, even in English, by being compelled to discriminate the meaning of synonymous English words that may be given for his Greek and Latin words in the dictionary, even if his author may have a special vocabulary. He is compelled to use in short the two great factors that enter into all education, observation and reflection. Slipshod expression, and still less slipshod thinking, will never enable a student to understand the meaning of an author. Not only must he understand the meaning of every word and phrase,

the relative connection of each, note emphatic positions, but the Greek and Latin form of the sentence—especially the Latin—must often be put in a different mould from that of the English. He has also an unceasing variety not only of constructions in the same sentence, but in authors like Thucydides and Livy, the ever-changing periodic sentences which must be broken up to conform to the direct expression of the English. The mind of the pupil is thus kept from the beginning to the end of his exercise in a state of alertness which acts as a whetstone to his mental power. In short he is taught the importance of precision in both thought and expression, he is acquiring form and style and is laying on a sure basis the greatest of all accomplishments—the ability to express himself in his own English with distinctness, clearness and effect.

In the June number of *Scribner*, George F. Hoar, a member of the United States Senate, one well qualified to speak on this topic, has given excellent testimony in favor of classical studies. "In my opinion," says he, "the two most important things that a young man can do to make himself a good speaker, are, first, constant and careful written translations from Latin and Greek into English; and, second, practise in a good debating society." He then mentions the great parliamentary orators of England who were nurtured in the palmy days of classical education, and ascribed a great measure of the success they attained to the training they received by pursuing the studies of Greek and Latin—Chatham, Pitt, Fox, Bolingbroke, Palmerston, Canning, Earl Grey, Marquis Wellesley, Gladstone.

The next step that the student takes is still more difficult than the former. He has been taught to apply his grammatical knowledge to translation from Greek and Latin into English, and is now made to translate English into Latin and Greek. This is a difficult task, and it is the difficulty of the task that makes it an effective training. According to Solon, the Athenian, *χαλεπὰ τὰ καλὰ* "All fine things are difficult." You all remember in that interesting story of Ian Maclaren, "Beside the Bonnie Brier Bush," how unerringly Domsie, the Drumtochty schoolmaster, scented out "the lad o' pairts," George Howe, from among the other scholars of the parish school. After telling the leaning that Domsie had to the classics and the professions, though he was catholic enough in his tastes to allow a pupil who had no taste for classics the alternative of studying beetles, Maclaren continues: "But it was Latin Domsie hunted as for fine gold, and when he found a smack of it in a lad

he rejoiced openly. He counted it a day in his life when he knew certainly that he had hit on another scholar, and the whole school saw the identification of George Howe. For a winter Domsie had been 'at point' racing George through Caesar, stalking him behind irregular verbs, baiting traps with tit-bits of Virgil. During these exercises Domsie surveyed George from above his spectacles with a hope that grew every day in assurance, and came to its height over a bit of Latin prose. Domsie tasted it visibly, and read it again in the shades of the fire at meal-time, slapping his leg twice. 'He'll dae. He'll dae,' cried Domsie aloud, ladling in the snuff. 'George, ma mannie, tell yir faither that I am comin' up to Whinnie Knowe the nicht on a bit o' business.' Then the 'schule' knew that Geordie Hoo was marked for college, and pelted him with fir cones in very gladness of heart." Domsie had the true teacher's instinct. To attain excellence in translating English into Greek and Latin is not an easy task. If the Greeks and Romans devoted to the study of style such labor and practise of which we have abundant anecdotes, it is not strange that we Canadians should find it a difficult task to translate idiomatic English into idiomatic Greek and Latin. We have to exercise in their highest degree observation and reflection. We must go deeper than the mere words of the passage we are translating, catch the spirit of the original and have a true perception of all that is excellent in both the English and classics to make our translation adequately representative.

But, some may say, may not all the advantages arising from the study of the classics be obtained from studying French and German ? It would be absurd to deny the utility of French and German, or to say one word of disparagement against the study of the literature of two nations that have done so much for the civilization of mankind as France and Germany. We, however, are looking at languages from the *linguistic* and not from the *literary* standpoint, and viewing the question from this side I am fully convinced that no *linguistic* substitute for Greek and Latin has yet been found. The reason is not far to seek. We can easily see that the ideas of all modern languages are similar in character. The structure of the sentences, especially in the Roman languages, is not very different from that of English. The comparative absence of inflections, and especially of mood forms with all their niceties of distinction, compels the pupil to dispense with that constant mental tension which the Greek and Latin languages force him to exercise. French, as we have already said, is not fully understood without

Latin, viewed from the *linguistic* side and from a literary standpoint many of the best works of French literature can only be appreciated historically with a knowledge of Latin and Greek, on which so many of their works are based. It is quite true that we may get a knowledge of German without studying either Latin or Greek, but how much would we miss in reading Lessing, Schiller or Goethe, not to say German philosophy, unless we know the fountain-head from which they drew their inspiration?

Again, what has been said with regard to French and German may be said with still greater force about English. Experience goes to show that much better results in English teaching can be obtained if the pupil has a knowledge of some other language than his own. In fact I venture to say that, except in the case of exceptionally gifted minds, the study of one's own language, whether it be French or English, is utterly inadequate as a mental discipline. The average pupil whose interest must always be considered as paramount, reads his English or French with facility, and it is this very facility that is fatal to reflection. He is quite content with the general sense of the passage; he seldom stops to weigh carefully the words or phrases; he pays little heed to the structure of the sentence, provided he grasps the idea; shades of expression and distinctions of synonymous words escape him entirely, and, in fact, he often loses the whole force of the author. His reflective faculty is not exercised.

It is entirely different in the case of a pupil who has acquired this faculty from the study of Latin and Greek. Every word must be weighed, every phrase considered in construction; every difference of idiom noted, and the general meaning of the passage fully comprehended. But in a more important sense is the study of classics valued, for without such knowledge we cannot understand fully the best in English literature. According to one of the best authorities, the late Professor of Poetry in Oxford, "the thorough knowledge of English literature . . . is hopeless unless based on an equally thorough knowledge of the literature of Greece and Rome." Professor Gildersleeve, of Johns Hopkins, has also well said: "Until we can disentangle from the growing structures of to-day the fibres of the far-off centuries; until we can draw out from our own lives the warp of the loom of time, we cannot attain to any high culture without an adequate knowledge of that world of the ancients to which we owe so much." English literature begins with Chaucer, "the well of English undefiled." His poetry

was directly derived from classical sources, and is not historically intelligible without reference to the fountains from which he drew his inspiration. Our great epic poems are moulded on the epics of Greece and Rome. The same may be said of didactic poetry. Of our lyric poetry, one kind springs from Pindar; another from Horace, and another from the Choral ode of the attic dramatists. To Horace and Juvenal our satire is indebted; to Horace our Epistles, and so we may go through the whole range of our literature. Take the work in literature read last year in our High Schools—Shakespeare's "Julius Caesar," Milton's "Paradise Lost," Tennyson. Could any one catch the full meaning of Shakespeare's play without a knowledge of the life and times of Caesar, or explain the illusions or even the language of Milton without reference to classical mythology or idiom? How much of the "Lotus Eaters" and of "Ulysses," and especially of "To Virgil," in Tennyson, would be lost unless the pupil had gained some idea of the spirit of Homer and Virgil?

We are constantly told of the utility of science. Now we friends of the classics have no quarrel with science. We rejoice at the marvellous growth of the scientific knowledge of the past century, and we trust that in the present century still greater achievements will be in store. The rapid development of our commerce and the opening up of our mines have given an impetus to our scientific schools. But often with all this the most erroneous conclusion is reached, that scientific training is valuable to the ordinary pupil as well as to the student who is going to be, say, an electrical engineer. The utility of scientific studies can only be valuable to the technical worker. All cannot be engineers any more than all can be college professors or ministers of education. While we admit the utility of scientific training sufficient to enable us to understand the method by which scientific work is carried on, it is absolutely absurd to expect that we all can be or should be scientists. It would be well for our educationists to see that both science and classics are retained in our curriculum of studies. There should be no discord between them, but I venture to assert that if the scientific side of our education is pushed too far we shall see a revolt against science. The only claim that a subject can have to a place on the programme of studies is not its utility, but the training it gives. So far as the average pupil is concerned, who is not to be a technical worker, he gets from the study of Latin and Greek all the training he can possibly get from pursuing a scientific course; that

is, correct observation and correct inference with this vast advantage that he gets besides the power of expression which a scientific training lessens rather than increases.

The subject of this paper is, "Should Greek and Latin be Retained as Subjects in Our Secondary Schools?" As I have already said, I do not believe in options. Greek and Latin cannot be separated without a grievous loss to both. In language, history and civilization, modern Europe rests largely on Rome. Roman civilization, however, still more largely rests on that of Greece. It was only after the Romans conquered the Greeks that Roman literature took its rise. Without a knowledge of Greek literature the literature of Rome is utterly meaningless, for nearly all the best in Rome literature is only a faint reflection of that of ancient Hellas. We cannot understand Lucretius without the Epicurean philosophy, Virgil without Homer, Horace without the Greek melic poets, Cicero as an orator or philosopher without the masterpieces of Athenian eloquence or philosophy. Roman history, too, is based on Plutarch, Diodorus, Polybius and other Greek historians. We might go through the whole list of Latin writers and we would find that the Greeks were their masters. The two nations were linked together, and the two languages should not be separated in education to fully understand the civilization of the ancient world. It is a sad loss to our country that the study of Greek is neglected. It has had in the past, as I have pointed out, a struggle for existence, and seemingly "the time of its departure is at hand," unless some help comes from an unexpected quarter. I trust that something will be done to put the study on a footing more secure than it is at present. Latin must be retained, and should have a more important place in our studies than it has. If Canada means to take a position among the great nations of the world, let her prize the intellectual discipline that the study of Greek and Latin confers, and not exhibit the utilitarian spirit which is too manifestly the goal of present educational tendencies.



## MATHEMATICAL AND PHYSICAL SECTION.

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*SOME EDUCATIONAL FALLACIES.*

I. J. BIRCHARD, M.A., PH.D., TORONTO.

In speaking of the Educational System of Ontario the popular phrases are those which refer to the improvements effected in recent years and the degree of perfection at present attained. But inasmuch as honest criticism is usually more valuable than indiscriminate praise I propose for the next few minutes to point out defects rather than praise merits. And in order to place my ideas in the clearest possible light permit me to use as an illustration one of the fundamental principles of modern science with which we as mathematicians are very familiar—I mean the Conservation of Energy.

In former ages a great amount of time and energy was spent in the search for perpetual motion. It was thought that by some cunning arrangement of wheels and pulleys a machine could be made which would perform work without the expenditure of energy. Such a machine would be exceedingly valuable and many were the combinations formed to obtain the coveted result. The fact that a thousand efforts had failed was no reason why another effort might not succeed. But the discovery of the Law of Conservation of Energy at once showed the impossibility of the problem and at the present time the perpetual motion man has nearly disappeared from the mechanical field. He is not dead, however, but has merely changed the sphere of his activity, and of late years has been very much in evidence where he is likely to do more mischief than ever, viz., in the educational field.

The chief aim of our educational reformers during recent years has been to make everything easy. Difficult subjects have either been removed entirely or the requirements have been reduced and the examinations simplified. The teaching process has been arranged to throw the burden on the teacher to relieve the pupil

from effort. The average student of to-day expects to be shown how to do everything and is helpless if left in any considerable degree to his own resources. The mental discipline which is obtained by attacking a difficulty, wrestling with it and conquering it, has been to a considerable extent lost by too much simplification. In all cases where unnecessary difficulties have been removed there has of course been a corresponding gain. Where reductions in the requirements of one subject have been made to make room for what is more valuable no complaint can be made. The fallacy lies in the tacit assumption that intellectual power and strength of character can be obtained without serious effort on the part of the student and that an educational curriculum can be improved by simply omitting the difficulties.

Methods of teaching in times past were not always what they should be and various remedies have since been tried. Some of these are worthy of a passing notice. Our arithmetics used to contain proportion under the old-fashioned title of "Rule of Three." It was not well taught, doubtless, in many cases. The examples were frequently solved in a very mechanical manner and little educational value was obtained. The remedy was easily found. Proportion was banished from the arithmetics, and a new name, the "Unitary Method," was put in its place. The scholars were no longer permitted to put the three given numbers in a row, multiply the third term by the second and divide the result by the first. The teaching was improved by first dividing one of the three numbers by another and then multiplying the result by the remaining number. And when a few years ago it was desired to have the pupils of a certain Public School prepared for the Intermediate Examination it was found that the teacher in charge did not know anything of natural philosophy, as it was then called, and consequently would probably teach merely book work, and that in a very mechanical way. So trifling a difficulty was easily overcome; the teacher was directed not to use a book but just give the scholars notes. And so notes were given. An antiquated work labelled "Natural Philosophy" was found, portions of it were read *verbatim* and copied by the pupils *literatim* (when they could spell correctly), and the notes recited in proper order on the following day. Now, I have nothing to say against the Unitary Method to which reference has been made; it is all right if well taught—and the same is true of proportion. But the teacher who teaches proportion badly will teach the

Unitary Method badly, and nothing is gained by changing the name. And the teacher who merely teaches "words" from a book will teach merely "words" without a book, with, however, the slight difference that in the former case the "words" will probably be correct, but in the latter they are likely to be incorrect.

The efficiency of the teacher is here the motive power which drives the machine and if that be wanting no cunning contrivance of educational wheels and pulleys will be of any avail.

Again, methods of discipline in early times were frequently bad. Flogging was entirely too frequent and administered in improper ways. The commands of the teacher were frequently unreasonable and the pupils subjected to personal indignities. The smaller children were kept too closely confined at a tender age and were prevented from receiving the benefit which comes from children's games and sports. To remedy these serious defects the kindergarten was established for the smaller children. In it they are taught to play, but not to work; are never punished nor compelled to do anything against their will; are not required to obey on the authority of the teacher's command, but only when they can be persuaded to do so. The rights of the boys in the regular Public School classes here in Toronto were, for a time at least, carefully guarded by forbidding the teacher to punish them without first obtaining their consent to be punished. In both cases the author of the regulations appears to have been thoroughly impressed with the doctrine that the just powers of a government are derived from the consent of the governed; but the wisdom of this application of democratical principles has not been satisfactorily established. The regulation has been repealed and now the culprit's consent is no longer considered necessary; he must submit to the established authority whether he approves of it or not. But the kindergarten regulations are still in force, in theory at least; but from conversation with a very successful kindergartner who has both love for children and good common-sense, I suspect that the wilful disobedient child is still occasionally persuaded in the old-fashioned way.

Be this as it may, however, let us examine a little more closely the fundamental axioms of the kindergarten. The most important part of education is not the mere acquisition of knowledge, but the formation of character; and in the case of small children the most valuable lessons in character formation are those which teach obedience to proper authority and promptness in the performance

of duty. Now it is just in these two particulars that the kindergarten fails. It does not inculcate punctuality; it permits the little ones to go and come as they please. It does not teach obedience to authority, but permits them to follow the inclination of their own wills.

A thoughtful mother, the wife of one of our leading educationists, said to me in the course of conversation the other day, "I think I shall take Willie (age 5 to 6) out of the kindergarten, he is becoming so careless and indifferent. Nothing is said when he arrives at school late, and while there he does not have to do anything unless he likes to do it. The absence of all authority is causing him to be careless and disobedient." That mother was undoubtedly correct in her inference. Little ones need to be dealt with kindly and lovingly. Their chief business is undoubtedly health-giving play. But they are not too young to be taught obedience and so soon as they are able to go to a kindergarten class at all they should be impressed with the importance of being there on time. Wholesome discipline in conduct and in work is the most important factor in education. It should begin at the earliest possible moment and continue throughout the Public School, the High School and the University courses. The lack of it is one of the chief defects in our present course of education.

Another form in which this same fallacy shows itself is in the attempt to simplify subjects which are essentially difficult. Lead is heavy and to lift a block of it against gravity is hard work; it would be much easier to raise a block of wood of the same size. Now I presume it would be quite possible to paint a block of lead so that it would look just like a block of pine; but, if so, the labor required to raise it would not be changed. The eye may be deceived, but not the attraction of gravitation. Laws equally inflexible govern the mental world and it is just as foolish to try to escape them as it is to cheat gravity. We have had some ludicrous attempts to simplify difficulties during recent years. It is well known that the fundamental principles of dynamics, acceleration, and the connection between force and motion are not very readily understood by inexperienced minds. I heard President Loudon speak very emphatically of the difficulty he and other University professors had experienced in causing their students to properly understand the subject. But the attempt was made a very few years ago to teach this work in our Collegiates, not where we very properly have it now, in honor work for the Sixth

Form, but to beginners in physics—to mere children. Of course it was dressed up very nicely—in such a way as to attract the attention of and to please the boys and girls. A large marble was to be allowed to roll down an incline and one boy was to mark its position with a piece of chalk at the end of each successive swing of an improvised pendulum as announced orally by another boy set to watch it. I have heard several students relate their experiences in that kind of work and they all agreed that they had a great amount of amusement from it, but I did not find that they had derived any clear or accurate ideas of the nature of acceleration or that they knew anything about gravity that they did not know before. The exercise had just one merit, it was *easy*—and worthless. In another of our text-books—the High School Geography—the elliptic form of the earth's orbit is accounted for in language supposed to be suitable for and intelligible to children. The mathematical equations which show the connection between the law of the inverse square and the elliptical orbit are of course omitted, with the result that part of the so-called explanation is absolutely meaningless to any one, while the part which does convey an intelligible idea is incorrect. Such teaching is exceedingly mischievous. Not only is the time of the student wasted, which in itself is a serious matter, but he is given wrong views of what constitutes science; his ability to distinguish between what he knows and what he does not know instead of being increased is diminished. The line between knowledge and ignorance, instead of being more sharply drawn, is obliterated, and the only progress of the student is from ignorance of the subject to ignorance of his ignorance.

Now, in order not to be misunderstood, permit me in conclusion to restate concisely what I have been trying to say and also some things which I do not wish to be understood to say. It is a mistake to relieve a boy from the necessity of struggling with difficulties. Hard work is Nature's price for mental power, and the price must be paid before the goods are delivered. It is a mistake to attempt to simplify what is essentially difficult and to teach to children that which is suitable only for adults. It is a mistake to relieve a boy from the necessity of obedience to established authority both in conduct and work. Wholesome discipline, kindly but efficiently enforced, is a very important element in education. Now I do not wish to be understood to approve of keeping a boy at work under difficulties which unnecessarily hinder his progress. Give him the

best text-books which modern scholarship can produce and let his work be superintended and directed by the most skilful teachers whose services can be obtained. The educational field is sufficiently large for the brightest of our boys without hampering them with clumsy tools and antiquated methods.

Reduce the friction of the educational machine to a minimum so that the work accomplished will be proportional to the energy applied. See that the difficulties to be encountered are those and those only which are inherent in Nature, that they are presented to the student in the order in which they are the most readily apprehended, and that they are at all times suited to the age and intellectual capacity of the student. But remember that true education is costly in individual effort as well as in money, and that educational results, not less than mechanical results, are impossible without the expenditure of an equivalent amount of energy. Perfection in the system implies not the furnishing of motive power, which is an impossibility, but that no energy is lost through badly constructed machinery.

## HISTORICAL SECTION.

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*METHODS IN HISTORY.*

REV. J. O. MILLER, M.A., ST. CATHARINES.

History lies at the root of all science; it is the first expression of man's nature; it is the first result of thought applied to the actions of life.

A great writer has said: "A talent for history may be said to be born with us as our chief inheritance. In a certain sense all men are historians. . . . Our very speech is curiously historical. Most men, you may observe, speak only to narrate; not in imparting what they have thought, which, indeed, were very often a small matter, but in exhibiting what they have undergone or seen, which is quite unlimited, do talkers dilate. Cut us off from narrative, how would the stream of conversation, even among the wisest, languish into detached handfuls, and among the foolish, utterly evaporate! Thus, as we do nothing but enact history, we say little, but recite; nay, rather, in that widest sense, our whole spiritual life is built thereon."

It is unnecessary for me in this place to advocate at any length the wisdom of thoroughly training our children in history. I am sure you are convinced, as I am, that the scientific development of the historic sense is second to no other requirement in a sound education. To quote again: "History is a looking back, before and after; as, indeed, the coming time already waits unseen, yet definitely shaped, predetermined and inevitable, in the time to come, and only by the combination of both is the meaning of either completed. The Sibylline books, though old, are not the oldest. Some nations have prophecy, some have not, but of all mankind there is no tribe so rude that it has not attempted history, though several have not arithmetic enough to count five. History has been written with quipo-threads, with feather pictures, with wampum belts, still oftener with earth-mounds and monumental stone-heaps, whether as pyramid or cairn: for the Kelt and the Copt, the red man as well as the white, lives between two eternities, and warring against oblivion, he would fain unite himself in clear conscious

relation, as in dim unconscious relation he is already united with the whole future and the whole past."

If this applies to nations it also applies to the individual. It was a fine and beautiful instance of the historic consciousness that found utterance in Wordsworth's "Intimations," a poem that might be called the "biography of a human soul." This poem is a noble example of the highly-brained imagination, esoterically taking upon itself the mould of the historic. As you will readily see, my object in such an allusion is to illustrate and emphasize our aim in teaching history. It is, as Wordsworth says, to produce "the philosophic mind." If history is philosophy teaching by experience, then the goal of historical study is clearly before us. It is the attainment of the highest citizenship. "Politics," says Sir John Seely, "are vulgar when they are not liberalized by history, and history fades into mere literature when it loses sight of its relation to practical politics." This, then, is the object we must keep before us, training for citizenship.

There never was a time when we needed to be more alive to this object. Matthew Arnold, in one of his books, asks: "What are the essential characteristics of our nation? Not, certainly, an open and clear mind, not a quick and flexible intelligence. Our greatest admirers would not claim for us that we have these in a pre-eminent degree. They would rather allege, as our chief spiritual characteristics, energy and honesty; and if we are judged favorably and positively, not invidiously and negatively, our chief characteristics are, no doubt, these. Energy and honesty, not an open and clear mind, not a quick and flexible intelligence. Openness of mind and flexibility of intelligence were very signal characteristics of the Athenian people in ancient times; everybody will feel that. Openness of mind and flexibility of intelligence are remarkable characteristics of the French people in modern times. I think everybody, or almost everybody, will feel that. I will not now ask what more the Athenian or the French spirit has than this, or what shortcomings either of them has as a set-off against this; all I want now to point out is that they have this, and that we have it in a much less degree."

If we accept these dicta, the moral for us as teachers is the development of the historical sense, the training of the sense of proportion, which is only achieved by long and thorough study of the great historical categories, applied, first, to *local*, and then to *universal*, history.



We may clear the ground by a further quotation from the same writer: "There is a view of culture in which not solely the scientific passion, the sheer desire to see things as they are, natural and proper in an intelligent being, appears as the ground of it. There is a view in which all the love of our neighbor, the impulses toward action, help and beneficence, the desire for removing human error, clearing human confusion and diminishing human misery, the noble aspiration to leave the world better and happier than we found it—motives eminently such as are called social—come in as part of the grounds of culture, the main and pre-eminent part of it. Culture is then properly described as not having its origin in curiosity, but as having its origin in the love of perfection; *it is a study of perfection*. It moves by the force, not merely or primarily of the scientific passion for pure knowledge; but also of the moral and social passion for doing good. There is no better motto which it can have than these words of Bishop Wilson: '*To make reason and the will of God prevail*.'"

The study of history is, perhaps, the greatest single factor in that broad culture which marks the high-minded man, the man of judgment, the ideal citizen. If the Greeks prided themselves upon *φρονησις*, which involved a hatred of extremes, doubtless they came as a people to value that quality of mind from a long and close study of the greatest models. The highest aim of the teacher of history is to help the student to use knowledge in such a way as to stimulate the growth of mental power. It was a favorite dictum of Dr. Arnold, of Rugby, that the greatest efforts of the student should be bent upon those matters in which throughout his life his reason and his will should find activity. The wise teacher of history must make the facts with which he deals subservient to the forming of mind, the arousing of intellectual vigor, and the love of right action.

Froude insists that history does teach that right and wrong are real distinctions. "Opinions alter, manners change, creeds rise and fall, but the moral law is written on the tablets of eternity." On this point we have also the authority of Professor Goldwin Smith: "A sound historical morality will sanction strong measures in evil times; selfish ambition, treachery, murder, perjury, it will never sanction in the worst of times, for these are the things that make times evil. Justice has been justice, mercy has been mercy, honor has been honor, good faith has been good faith, truthfulness has been truthfulness from the beginning."

Lord Acton truly says: "Whatever a man's notions of these later centuries are, such, in the main, the man himself will be. Under the name of history they cover the articles of his philosophy, his religious and his political creed. They give his measure, they denote his character. Modern history touches us so nearly, it is so deep a question of life or death, that we are bound to find our way through it, and to owe our insight to ourselves.

In what I have said about the aims of historical teaching, I have indirectly, but I hope logically, indicated its subject matter and its method.

It is evident that if we are at all to keep in view our ideal, much more attention should be given to the study of history in our schools than is now given. For my own part, I should be well content to see the course of historical study considerably extended, even at the expense of some other subjects, such as arithmetic and formal grammar.

In these days all good things are made in Germany. It may be useful to recall the general features of historical instruction as given in German schools.

First, elementary instruction is entirely oral. There is no text-book; the teachers are specially trained to take their pupils over a carefully prescribed course of study.

Secondly, the primary course is wholly *biographical*: the lessons are all narratives, tales, stories and short lives of important historical personages. This course is kept up for two years.

Let us for a moment consider this method. Imagine the effect of such a course of instruction upon children between ten and twelve! Instead of lessons in a dry text-book, the hardest of all tasks for a young child, there is delightful story-telling; there are living personages, or personages made to live again; there is a demand made upon the imagination—the child's favorite exercise; there is the concrete, not the abstract.

The writer of a recent elementary English history says in his preface: "The human heart is much the same whether it dresses in silk or broadcloth, and arbitrary taxation is as much a grievance whether the payers wear frock coats or shirts of mail. . . . Even the bloodiest of battles, if it lead to nothing, is less attractive to the average schoolboy than the story how, through the tenacity and foresight of his ancestors, he will have the privilege of keeping his own money in his own pocket, unless it is voted for public purposes by his accredited representatives." The reviewer

of this book says: "We have never met with the schoolboy who would rather read of Scutage than the battle of Otterburn, or took more interest in Benevolences than in Flodden Field. The point at issue turns on the age of the pupil (this was an elementary history) and our protest is directed against any attempt to teach political history—history proper, if you will—before the age of thirteen or fourteen at the earliest. Up till this let us have biography, battles, incidents, anecdotes."

How far is any attempt made to follow such a method in our Public Schools? The departmental course of study provides for no such method. There is the latest syllabus of study: *Form III*. "Conversations on British and Canadian History; Local History." *Form IV*. "Leading Events in Canadian and British History, with Special Attention to Canadian History Since 1841." *Form V*. "The History of Canada-British History." These are all the regulations for the Public School course in Ontario.

The syllabus for *Form III* is unobjectionable, so far as it goes; but it is vague and indefinite just where it should be clear, precise and full. In order that I may not be merely negative in my criticism, let me suggest a programme of study for the first form in which history is taught. I would exclude British history, except incidentally and in a connective way.

*Local History*.—I would have a carefully and minutely full syllabus prepared for use in each county by a committee of teachers presided over by the County Inspector. I would begin with local names, in so far as they affected the locality. Such a plan would soon take us back to the age of romance, and perhaps even of tradition—the most interesting of all for children.

In the Niagara Peninsula the prescribed course would be somewhat as follows:

A. The U. E. Loyalists. The story of Laura Secord.

B. The War of 1812. The story of Sir Isaac Brock and the Battle of Queenston Heights, etc., etc.

C. Indian Occupation. An account of the Neutral Nation, and the story of Brébeuf's visit and ill-treatment.

D. The story of Father Hennepin's discovery of Niagara Falls.

E. The story of La Salle's exploration and the building of the *Griffin* and the old Niagara Fort.

F. *General Canadian History*. Not at all the modern period, but stories of important personages and incidents previous to the capture of Quebec:

(1) Stories of Indian Warfare. Frontenac, Iberville and his brothers; Madeleine Verchères; Maissonneuve, Daulac.

(2) Early Missionary Effort—Brèbeuf, Le Caron, Lalemant, Jogues.

(3) Early Discovery—Cabot, Cartier, Champlain, La Salle, Tonty, Vancouver, Captain Cook, Mackenzie, Selkirk.

(4) Wolfe and Montcalm, and the final struggle at Quebec.

Perhaps there is more than a year's story-telling in this plan, which is merely suggestive, but that is immaterial. I have emphasized it because the Ontario regulations make no provision for systematic instruction in the most thrilling and romantic incidents that any land could wish to take pride in.

Instead of this we have the Canadian Public School History. Mr. Matchett is to deal with it to-morrow. I hope he will deal with it as it deserves. My own conviction is that there is not a worse book for the purpose on the whole Departmental list.

The prescribed course of study for Form IV is likewise vague and indefinite, except in one particular, and there I think it wrong. A pupil's second year in history should be a repetition and extension of the first, with more detail, with some attention to a connected narrative, and a good deal of attention to reproduction on the part of pupils. From 1841 to the present time is just the portion I would exclude from present study. Instead of this I would begin to teach British History on the same plan as that outlined for Canadian History, with considerable attention to reproduction. Here again, the English History authorized for use in Form IV is not a satisfactory book. I would have no book but an *exercise book*—and a carefully prepared outline for the teacher to follow.

Perhaps it is unavoidable, but it is a pity that we are somewhat hide-bound as to text-books. There are schools where it is not easy to get teachers skilful in teaching all subjects. In England and Scotland there are splendidly prepared series of historical readers which would be a great boon to our school children. I know well two of these series—one, Macmillan's History Readers, and the other Arnold's Britannia History Readers. Here is the preface to the introductory book of the latter series: "The writer of this little book is well aware that several of the stories told in the following pages rest upon very weak authority, while a few are most certainly fables. This, however, did not appear to be sufficient reason for their omission. Each has a human interest

which will appeal to the sympathy of the youngest reader. The misadventure of King Alfred in the neatherd's cottage makes the figure of the Saxon King a reality, and the sympathy enlisted for the cake-burner becomes very useful in dealing with the law-giver, the navy-builder, and the man of letters." That is, I conceive, the right spirit for the teacher of elementary history.

I must state clearly that in elementary history classes I am opposed to any text-book, where it is possible to get the teacher to use a more skilful method—and this is possible in most Canadian schools. All that is needed is a carefully and minutely prepared outline and a good teacher. Of course the pupil should have an exercise book. May I venture to show you the one I use? Any teacher can make an ordinary exercise book answer the purpose of his own teaching.

I should state, before leaving the subject of Canadian History, that the Department of Education in Manitoba seems a little more alive to the condition and needs of elementary instruction than are we in Ontario. There a syllabus is set forth in outline—excellent so far as it goes. It is unnecessary that I should take up your time by discussing it here.

Let us look again, for a moment in conclusion, at the German method. I have mentioned the scheme of study for the first two years. In the third year, when the pupil is about twelve years of age, the teacher conducts him a second time over the former course, but with a somewhat different end in view; the individual man falls a little out of sight, while the people, the nation, comes into prominence, *e.g.*, the subject is no longer the story of Sir Isaac Brock or of Laura Secord, but the war of 1812. Attention is paid to historical connections; cause and effect begin to be introduced. The general range of facts is somewhat widened.

In three years more, at the age of fifteen, the pupil has made two studies of universal history, one a plan similar to that of his earlier studies. No text-book is used—only sketches, outlines, some names and dates, as an aid to memory—are placed in his hands. The teaching has been oral—the principal drill has taken the form of reproductive compositions.

The remaining three or four years of his course are occupied in enlarging the outlines previously mastered, and, perhaps, in specializing upon some particular period, or upon a single nation.

It is unnecessary to emphasize the fact that we are, as yet, far behind such a system.

The question is, how can we attain to a higher standard? It is certainly possible to improve our methods—perhaps not of our best teachers—but those in vogue in the majority of our schools. This is largely a matter for the Department.

If I may venture on a suggestion, does it not seem possible that, in large centres like Toronto, specialists in history could be employed to teach this subject in a number of schools? Such a plan would be a great boon to elementary schools. If a teacher were employed as a specialist in elementary history his powers as a narrator would soon become wonderfully developed, and the pupils would eagerly look forward to such lessons as he would be able to give them, because their interest and sympathy would be intense. It would be the living voice making to live again the thoughts, actions and aspirations of the illustrious dead.

And so we come back again to our starting point, in method, viz., teaching history at first through biography. Dr. Arnold, of Rugby, calls history the biography of a state. The father of history begins his immortal work with the words: "This is a publication of the researches of Herodotus of Halicarnassus in order that the actions of men may not be effaced by time, nor the great and wondrous deeds displayed both by Greeks and barbarians deprived of renown, and among the rest, for which cause they waged war upon each other."

Frederic Harrison says: "There is one mode in which history may be most easily, perhaps most usefully, approached. Let him who desires to find profit in it begin by knowing something of the lives of great men. Not of those most talked about, not of names chosen at hazard, but of the real great ones who can be shown to have left their mark upon distant ages. Know their lives, not merely as interesting studies of character, or as persons seen in a drama, but as they represent and influence their age. Not for themselves only must we know them, but as the expression and types of all that is noblest around them.

"Let us know those whom all men cannot fail to recognize as great, the Cæsars, the Charlemagnes, the Alfreds, the Cromwells, great in themselves, but greater as the centre of the efforts of thousands. It is almost better to know nothing of history than to know with the coldness of a pedant a record which ought to fill us with emotion and reverence."

However imperfect may have been my attempt to discuss this subject, you will at least feel assured that I recognize its importance

in the right education of our children. There is much that we have to teach them, much that some of us would like to teach that we seem unable to compass. But these things we must teach them: "to love freedom, to hate extremes, to do justly, to love mercy, to walk humbly, to seek judgment."

That is it, "to have a right judgment in all things," not merely a highly-trained mind, but the vigorous exercise of sound practical judgment in private affairs and still more in matters affecting the weal of the State; if you will, the highest patriotism.

"Love thou thy land with love far-brought  
From out the storied past, and used  
Within the present, but transfused  
Through future time by power of thought.

Watch what main currents draw the years,  
Cut Prejudice against the grain;

· · · · ·  
Nor deal in watchwords overmuch;

Not clinging to some ancient saw;  
Not mastered by some modern term;  
Nor swift nor slow to change, but firm;  
And in its season bring the law,

That from Discussion's lip may fall  
With Life, that, working strongly, binds—  
Set in all lights by many minds  
To close the interests of all."

Of the Muse of History we may say what has been finely said of the Spirit of Liberty:

"Her open eyes desire the truth,  
The wisdom of a thousand years  
Is in them. May perpetual youth  
Keep dry their light from tears;

That her fair form may stand and shine,  
Make bright our days and light our dreams,  
Turning to scorn with lips divine  
The falsehood of extremes!"

*THE PRESENT PUBLIC SCHOOL TEXT-BOOK IN HISTORY.*

M. W. MATCHETT, PETERBORO'.

I do not for one moment suppose that everybody present will agree with all I may say in regard to the subject of history and the present Public School text-book in history, neither do I expect to agree with everything that others may say in the discussion which will no doubt follow the presentation of this paper. But if I succeed in provoking a full and impartial discussion of the merits and demerits of the present text-book, if we secure a number of good suggestions as to what an ideal text-book should be, and if we then embody our conclusions in a resolution to be sent to the proper authorities in the hope that it will produce the desired effect, we shall not have spent an unprofitable hour, and I shall have attained my object in attempting to present this subject for your consideration.

In examining this text-book, and before deciding, as politicians say, "that it's time for a change," we might ask and try to answer some such questions as these :

(a) Is the language of the book sufficiently simple as to be easily understood by the pupils who are expected to use the book ?

(b) Is the style sufficiently interesting as to give pupils a love for the subject, so as to lead them to continue to study history in after years, or is the style such as will lead pupils to the mistaken conclusion that history is necessarily a dry and uninteresting subject ?

(c) Has the author selected the most important topics for consideration, and has he arranged them in the best possible order for study and discussion ?

(d) Does the subject matter of the book include all that Public School pupils should know to make them intelligent Canadian citizens, keeping in view the fact that about ninety-five per cent. of our pupils never go beyond the Public Schools ; and is the book sufficiently complete to enable the remaining five per cent. to creditably pass the Entrance Examination ?

(e) Is it the best book now published, or that might be published, for the purpose for which it is intended ?

(f) Does the "Table of Contents" form a good outline for pupils preparing and reviewing their work, and is the "Index" suffi-



ciently complete to make it a convenient reference book for pupils ?

(g) Is the book better or worse than its notorious predecessor, well-known as the "Red" History, whose faults should be conspicuously absent in the present book ?

(h) Is it a book prepared by Public School teachers, for the use of Public School teachers and their pupils, keeping in view the capabilities and needs of those pupils ?

(i) Is the book such as teachers and pupils should be compelled to use, under penalty of the school losing its grant and the teacher forfeiting his certificate if it be replaced by some other text-book ?

(j) Is the price reasonable, seeing that a large sale is assured as soon as the book is authorized ?

(k) Can we get a better book ? If so, how ?

History is one of the most interesting subjects on the programme. Do the pupils find it such ? If not, the blame must rest somewhere, and while, of course, as in all school sins, the teacher must be at fault, it is just possible that the text-book is deserving of some blame, too.

In the introduction to the "High School History of England and Canada," authorized in 1891, the author says :

"An effort has been made to give a fair and impartial outline, in language so simple as to be easily understood by the junior pupils of our High Schools."

And in the introduction to the Public School History issued a year later, 1892, the same author says : "The Canadian portion of this work is the same as that in the High School History, the only change being in the omission of the indented notes." He also says : "This little book is intended to lead up to the High School History, etc."

Now, it puzzles us somewhat to understand how, under these circumstances, the one can lead up to the other, so far at least as the Canadian portion is concerned ; and, while perhaps the language may be easily understood by junior High School pupils, it is my experience, as well as that of many other Public School teachers whom I have consulted, that the language of the Public School history is, in many instances, much too difficult for pupils even in the Fourth Book classes. The result is, that in trying to understand the meaning of certain words and phrases, the learner's attention is divided, he fails to learn the history as well as he would if the language were simpler, and he acquires a distaste for the subject.

And no one can seriously urge that the pupil needs this extra training in literature, since the Education Department has generously placed the whole of the Fourth Reader at our disposal for that purpose.

Fitch wisely says: "After all, it is the main business of a primary school, and indeed a chief part of the business of every school, to awaken a love of reading, and to give children pleasant associations with the thought of books."

It was what I consider my good fortune to get most of my early historical knowledge from a book, which is doubtless familiar to many of you, "Collier's History of England." I found it quite interesting and so do my pupils, for I still have the old book, almost worn out, on my desk at school, and it is frequently borrowed by the pupils when they have a few spare minutes.

Probably many of you have a vivid remembrance of your struggles, as pupil or teacher, with that book, which preceded the present text-book, perhaps best known as the "Red" history. In some respects I think that book was better than the present one. It had a "Table of Contents," short and incomplete, but much better than nothing. It also contained a chapter on "How We Are Governed," something conspicuously absent in the present text-book. On this subject, every pupil should be well-informed, that he may take his place as an intelligent Canadian citizen, and, let me add, that he may be prepared for such questions as he is liable to meet at the Entrance Examination. Here are a few :

Write notes on the Premier of Canada ; of Ontario.

Explain heir-apparent and heir-presumptive.

By whom is each of the following appointed: Governor-General, Lieutenant-Governor, Premier of the Dominion, Senators, Judges, Wardens of Counties, Registrars, Sheriffs, etc.?

How are the legislative bodies of the Dominion and of Ontario, respectively, constituted, and what are the duties of each?

What are the nature and purpose of: The ballot; the prohibition plebiscite?

(Will any one this year venture to ask what is the real purpose of the Referendum?)

Write notes on: Federal Union; Legislative Union; Responsible Government.

Outline the Constitution of the Dominion of Canada, showing the composition of the Dominion Parliament.

Define the legislative powers of this Parliament.

Explain: Premier, Coalition Government, etc.

State the duties of each of the following, and explain how each is appointed: County Treasurer, Registrar, Governor-General, etc., etc.

You who are familiar with our present text-book know that many of these questions cannot be answered from it, and the conclusion seems to be that we must blame either the text-book or the Entrance Examiners. If these questions are reasonable, and I feel you will agree that they are, then the text-book should afford answers. To quote again from Fitch: "I would urge upon you the importance of lessons on the Government and Constitution under which we live. It is absurd to find children knowing about the Heptarchy and the Feudal system, and yet not knowing how our present Parliament is constituted, and what are its duties and functions."

As I have already hinted, the present text-book is almost useless as a book of reference, having no "Index," or "Table of Contents." If it had a well-arranged "Table of Contents," that table might be used by the pupil as a guide in reviewing his work, and in fixing in his mind the order of events.

If a little more space were given to the biography of noted persons, with a word or two as to their personal characteristics, pupils would take a greater interest and would realize much better the reasons why these persons pursued certain courses of conduct.

I think a few pages might profitably be devoted to giving a list of very important dates, with the event or events belonging to each. These might be printed in different kinds of type, or in different colors, to indicate their relative importance and to distinguish different classes of events, such as treaties, constitutional changes, etc.

The addition of some pictures of persons, places, etc., would add to the interest of a history book.

There should be a list of sovereigns, with dates of their rule, for reference purposes at least. Pupils must have an outline of some sort.

Black type could be used to good advantage in the body of the book, in calling attention to important names, words, etc., in each paragraph or section.

Since 1893, Canadian history has received more marks at the Entrance Examination than British history. Last year two-thirds of the paper was based on Canadian history. This is as it should be; and to further emphasize the Canadian portion of the work,

why should not more space in the text-book be given to describing, in an interesting manner, persons and events connected with Canadian history, and less to the details of British history. Some one may urge that Canadian history covers only about four hundred years, while British history covers a period about five times as long. True; but we can well afford to omit much that is not necessary to a proper understanding of our relationship to the Motherland, and a knowledge of the laws and institutions under which we live, and devote the time and space thus saved to obtaining a better knowledge of Canadian affairs.

I have pointed out what I consider some of the deficiencies of the present text-book, and, by implication, have hinted how improvements may be made.

To prepare an ideal text-book would be no easy matter, and there are few equal to the task. Goodness and fitness in a text-book are not absolute but relative terms. They depend entirely on the person who uses it. That book is the best for each teacher which he feels he can use best, and which suits best his own method and ideal of work, and the best text-book in history is not that which contains the greatest mass of facts, but that which is best written and most likely to encourage the student to desire a larger and fuller book. But in a multitude of counsellors there is safety, and if the preparation of a text-book were referred to a committee of Public School teachers, in active service, to whom suggestions and hints might come from other teachers; or if a representative committee of Public School teachers were appointed, to whom aspiring authors might submit their manuscripts, the best being chosen for publication, I feel convinced that a book could be prepared, much better suited to the requirements of our schools than can ever be secured by the present method under which, in most instances, a book is authorized, published and placed on sale without a Public School teacher having even been consulted, or having had a chance to assist.

No person is better prepared to write a book suited to the abilities of Public School pupils than a teacher who, from day to day, comes in contact with them. A person who is engaged in High School or University work is much more likely to express his ideas in language somewhat beyond the comprehension of Public School pupils.

But even with the best book much will depend upon the teacher. A bad book in the hands of a skilful teacher may be better than

the best book in the hands of an ordinary practitioner. But it does not follow that the use of bad books should be recommended as a general expedient, for we feel that the day has come when those who have charge of our schools are proving themselves to be school teachers and not simply school keepers.

Let us have the very best books that can be obtained to place in the hands of our pupils ; let them be sold at a reasonable price, or let them be printed under Government supervision, and sold at cost. Then let us, as teachers, make our scholars sensible of the responsibility which will hereafter devolve upon them as members of a free community. Let every boy be made to feel that his services may be required as member of Parliament, magistrate, alderman, or school trustee, and that it will be honorable to render such services. Patriotism is one of the things which our teaching ought to cultivate—a rational and affectionate regard for the country to which we belong and for the privileges we enjoy in it ; and in every Canadian school something should be done to make the scholars proud of our glorious heritage, and to animate them with a noble ambition to live lives and to do deeds which shall be worthy of it.

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## COMMERCIAL SECTION.

*ACCOUNTANCY AS APPLIED TO COMMERCIAL WORK.*

W. H. P. ANDERSON, C.A., TORONTO.

When we consider the multiplicity of our commercial interests and endeavor to conceive of the possibilities of industrial activity, how important it is that we should be concerned about higher commercial education.

With the incorporation of large manufacturing and other enterprises, an increasing number of financial institutions, and our numerous trading concerns of one kind and another, we are met with a demand for trained men for their various departments.

We are willing to admit the importance of the professions. They have their proper place in our midst; and no one can enter any one of them other than by the proper channels. Should we be less concerned about our business men who are daily engaged in carrying on the business of our country and the extension of its trade?

Commercial life has been too long regarded as any man's trade, and when one individual has outstripped his fellows in the race, we have accustomed ourselves to attribute his success to extraordinary ability and business instinct.

We are nothing if not an agricultural and industrial country, but with our great natural resources, a part of which have only been revealed to us, and this part but slightly developed, our industrial pursuits must shortly equal, if not exceed, those of agriculture.

Are we not justified, then, in anticipating years of commercial activity without precedent? This being so, our duty is plain, and that, that we should prepare for the responsibilities which will devolve upon us.

In the northern parts of our own Province, and not there alone but down by the sea, and in the far west, to say nothing of the great mysterious north, the scientist and the engineer are working hand in hand. After them will come the workmen, the mill and the factory, to convert our latent resources into merchantable products, for which even now we must be looking for markets, and

here we have to place a finger on the weak spot of our splendid educational system which has failed thus far to fully provide for the education of men, by whose energy we shall be able to place these products in all the markets of the world.

It is not sufficient that we should have in every town and city commercial classes. We want something more. The exigencies of the times are such that if we would attain to our proper place commercially, we must have an efficient commercial course, including a university course to specially fit men with an adequate technical knowledge of business.

In the old world, more especially Germany, rapid strides have been made in this direction, where commercial courses have been established in several of her universities, of equal standing with other university courses, and in the United States we find State colleges of commerce in connection with their universities.

In Canada we must be none the less concerned about the educational facilities afforded those who desire to enter commercial life. We must not leave to private enterprise (which at its best is limited in its scope) the education of our business men, nor can we leave it to the office and warehouse. We want something broader and deeper. Schools cannot teach business in itself, but they can give to those who pass through them such a knowledge of the great fabric of business life and commercial requirements as will make us a nation of business men in the highest sense of the term.

In the world of commerce and finance the opportunities that open up to young men are only limited by their individual capacity and knowledge; and in so far as they have had special training for the work they are called upon to do, they will be successful in attaining to the best results. This training is acquired in various ways, but with the exception of banking, in no well-defined manner.

Hitherto it has been thought sufficient to have a good general education, and we can certainly point with pride to some of our business men who have had to be content with such. If we were to ask them, however, how they acquired the knowledge they have, they would perhaps tell us they do not know. Long years of service gave them a thorough knowledge of their particular business, and it has been obtained in such a multitude of ways that it is impossible for them to say just how it came to them. Such men have given to a community a reputation for business solidity. By their energy and business sagacity they have made everything

round them to prosper. Can we estimate the value of many such men in any of our towns or cities ?

On the other hand we must not be forgetful of those whose incompetency and mismanagement have brought, sooner or later, the inevitable failure, and even the smallest failure is a disturbing factor in the daily transactions of trade.

I do not suggest that efficient commercial education will cause failures to cease, or be a panacea for all the ills of commercial life, but rather desire to attach to it the importance it deserves, and to enter a plea for a higher appreciation of it, and to note how essential it is, that this important department of our educational system should be fully alive to its responsibilities.

At one time the business operations of our traders and manufacturers were purely local in their character, and continued to be so until the demands of the local market were supplied.

With the development of the country, and the opening up of new territory, the trader became a wholesaler, retaining his local trade, and at the same time supplying smaller traders in the new districts. From this point it is not hard to trace the evolution of what are now wholesale concerns only.

With manufacturers, their development was of a slightly different character. In proportion to the demand for their products, their capacity for manufacturing increased, and their products found their way into markets in all parts of the provinces of our Dominion. In a great many instances they were not content to rest at this, and now their trade extends beyond our own borders to every part of the Empire, and in foreign lands.

This expansion required new methods. It necessitated the travelling salesman and the foreign agent. Progressive firms have been quick to realize the importance of the foreign market. They have made a study of its requirements, and the habits, customs and prejudices of the people are given every consideration. Even price lists must be submitted to them in their own currency ; and thus the possibilities of trade have been widened.

Merchandise, the delivery of which was at one time accomplished by local conveyance, is now shipped by rail and vessel, involving freight and charges of various kinds which are paid by the consignor, or consignee, according to the condition of sale.

The cable, the telegraph, and the telephone have made towns and cities one, and linked continents together. Every day large transactions are concluded through their medium, which at one time would have taken weeks and months.



Fixed terms of credit have become a necessity, and the trader has been enabled to give these, and afforded every facility, not only in this, but later in the collection of his bills, by the useful agency of the bank, without which our commercial activity would be seriously hampered, if not in some instances made impossible.

In this marvellous development of trade and the bringing of its various transactions to successful and profitable conclusions, men must have a knowledge of the laws of business. This being so, can we minimize the importance to those who enter business life, of a higher commercial training? A training which must be for no one department alone, but for every department, be it buying or selling, office or warehouse.

Another phase of this commercial development is the joint stock company. The limited liability principle has caused people to regard them with favor as investments, resulting in the flotation of many new enterprises with much benefit to our commerce.

In joint stock companies men have been quickly called upon to assume responsibilities, requiring special qualifications either of a natural order or the results of careful training, and what I particularly desire to emphasize is the demand for skilled assistance which they have created. The joint stock company is with us to stay, and by its very nature must always offer opportunities of advancement of a different character to that of the private concern.

Is it unreasonable, then, to suggest that the same progressive spirit which animates the commercial world should be found in commercial teaching? Surely the education of our future business men, upon whose efforts the continued prosperity of Canada must depend, is, indeed, a high privilege and a responsibility which we may expect our educators to be fully alive to.

During the past few years rapid advances have been made in the imparting of a commercial education, but I believe this department of our schools has a broader work to do than we are prepared to undertake, my conception of the scope and possibilities of which I have in a measure indicated.

It should not be presumed that every scholar who takes a commercial course is to be a bookkeeper, and to produce such should not be the whole object of our commercial masters. With the limited means at their disposal and in the time allotted to the work, this is not possible (diplomas to the contrary).

But as commercial work appears to have specialized book-keeping, I presume you expect me in some way to say something about

accounts, and what we are sometimes pleased to call the higher accounting.

I am afraid that much time is lost to the student and confusion caused him, by an insufficient grounding in the theory of book-keeping, with the result that scholars do not understand the difference between single and double entry, and simply believe it to be a mere columnar arrangement, thus remaining entirely ignorant of the principles involved. They are taken from one set of accounts to another and, by reason of sheer repetition, make entries in a mechanical sort of way in this column and that, without thoroughly understanding why they do so.

It is very necessary, then, that the theoretical instruction should be conducted with more than ordinary care. There should be careful study of negotiable instruments, which play such an important part in every-day business transactions, for if the student is unable to grasp the meaning and use of promissory notes and drafts, it is useless to attempt to teach him to keep a Bills Receivable or Bills Payable Account. Similarly, with ordinary business forms, simple laws of partnership, the meaning of a contract, exchange and discounts, the student should have a reasonable knowledge of, before actual working at, accounts.

I do not wish to dwell here, however, on the elementary requirements of a course in accounts, but rather to express what I think should be the ultimate goal of such primary instruction. We have to remember that in modern business offices we find many kinds of business forms and a varied assortment of books of account, and that no mere study of forms will make a book-keeper without a thorough knowledge of the principles involved in making an entry. The student who has been thus taught will soon become familiar with almost any book he may have to write up, and will in time learn the use of each book in the office and the information it is intended to contain. The danger in many of our large offices is that one person may be kept at one particular class of work for a number of years. There is, of course, no remedy for this: but when one shows ability to do other work than his own, there will usually be found a way of promotion.

I do not expect commercial masters to be accountants, but think the student should be reminded that the instruction given applies to principles only; that in the actual working of accounts in an office he will find the Cash Book, Purchase Book, Sales Book and other books, which are but Ledger accounts and Journal entries bound up in

separate covers. We frequently find that young men who pass through our business colleges with creditable records are completely at sea in practical work, because of the different manner in which their information comes to them. There can be no other explanation of this than that they have yet to fully understand what the full meaning of book-keeping really is. In so far as they have gone they have done very well, but the intricacies of accounts are so numerous, the many ways in which information may be recorded so varied, and yet all coming within the simple rule that for every debit there must be a credit and for every credit there must be a debit, that they may be pardoned if they do not understand how to overcome some of the difficulties which arise from time to time in their work.

I desire to point out in passing that I am looking at the keeping of accounts from the standpoint of the general knowledge required of a book-keeper in a first-class trading concern. Our commercial department can not, and can not hope, with its present limitations, to furnish this knowledge, and, as I have already indicated, I do not think it is intended that it shall. A fair acquaintance with elementary book-keeping is sufficient for the needs of those, whose duties are such as to make the book-keeping they have to do by no means a difficult undertaking. With ordinary intelligence and application, there is nothing to prevent a person with comparatively scant knowledge of accounts recording the daily transactions of various kinds of businesses where the accounts kept are sometimes confined to a mere writing up of receipts and disbursements, with, perhaps, a few personal accounts. In such instances the proprietor will himself keep in a private book the accounts representing his investment.

Large concerns, however, cannot be run on this basis, and the accounting is of the greatest importance. While the many transactions with those the firm buys from and those it sells to have to be carefully recorded, we have to remember that the book-keeper's labors are largely historical, and periodically he is expected to give to his principals, in concise form, the results of trading, the volume of business done, whether it is more or less than in previous years, and if it has been of a profitable nature or otherwise; the expense of carrying on the business and its relation to the volume; the total amount due from debtors either on their bills or on open account; the amount owing creditors; drawings of partners; discounts on purchases; discounts allowed customers; in brief, every-

thing which affects profit and loss or has increased or decreased the assets or liabilities.

When we enter into the realm of manufacturers' accounts, we find the possibilities of practical accounting of never-ending interest and variety. Old methods have given place to new ones. Where it was thought sufficient at one time to ascertain the profit made on the output for a period, without any analysis of that profit or any definite means of determining in detail how it was made up, we now find some system of costing. The scope of accountancy has been enlarged until to-day it deals not with mere books of account alone, but goes into the workshop and follows the piece of steel or other material through its multitudinous processes until it becomes the finished part of some powerful engine or the useful article of commerce. In the old land costing has received the attention it deserves, and in our own land we find our manufacturers exhibiting a greater interest in accurate costing of their products.

How far, then, does our Commercial Department go, and how far should it go, in imparting such elementary knowledge to its students as will enable them to follow up office work intelligently and fit them for all its problems? Taking the latter part of the question first, I have already expressed myself in favor of such a course as will not be confined to any one subject, but one which will be wide in its scope and liberal in its interpretation of the educational requirements of our future business men. Dealing with our present system, I think I can best make myself clear by discussing briefly some impersonal accounts common to, practically, every business of a trading character.

The first of these is the Cash Account, and no account has received so much consideration as it has, or had so many ingenious methods devised of keeping it. A detailed Cash Account is not kept in the Ledger; instead we have the Cash Book, which is but the Ledger Account under a separate cover, with this difference, however, that while it is an account it is also a posting medium, being journal in its character. Every entry made in it is a complete double entry and, by means of its columnar arrangement, partakes of the nature of a distributing journal. This has been carried very far, but in the ordinary cash book four, five or seven columns only, debit and credit, will be found. These are used for Merchandise Purchases and Sales, Bills Receivable, Bills Payable, Expense, Interest and Discount, and such other accounts as require a column for monthly cash credits or debits. In addition to these, bank columns are

introduced, and the bank account kept in the cash book. It may, then, be regarded as one of the most important accounts, and with it the student should have more than a passing acquaintance. It will, of course, be remembered that no entry should find a place in the cash book except one concerning cash or its equivalent. In no case should it be used for such purposes as transferring balances making allowances, crediting or debiting returns of goods and other items of a similar nature not concerning cash.

In my opinion, the writing up of simple columnar cash books, with the introduction of bank columns, should be a not unimportant feature of the work of the commercial class. The student who can correctly write up a cash book and make the necessary entries for bills discounted at bank, and bills unpaid at maturity, renewed, has made not a little progress in the keeping of books of account.

The Sales Book and Purchase Book are deserving of a few moments' attention. They differ from the cash book in that they cannot claim to be ledger accounts, but are rather important subsidiary books, collecting under sales or purchases all journal entries pertaining to goods sold or purchased. With a large number of sales, the sales book became a necessity, and in one form or another is found in many offices. If the business has two or more departments, the Sales Book may be ruled accordingly, and the sales distributed, the total credit for the month to the departmental sales account being made in one amount, the various personal accounts having been charged direct. In some instances it is the custom of business houses to copy their invoices into an invoice book and post direct to the ledger. The various amounts are carried forward and the total for the month credited sales account, thus maintaining the double entry.

An important account, the functions of which are somewhat misunderstood, is what is commonly called Merchandise Account. This account is intended to exhibit on its credit side cash and credit sales, and on its debit side purchases, the usual method of closing it being to credit amount of inventory of stock on hand and carry balance, representing gross profit, to profit and loss. This would give us the desired result, did we have no returns or allowances to consider. When these occur they are usually charged to Merchandise Account, but such a method, especially in a business of any magnitude, can only be described as primitive. Next to ascertaining his profit or loss on trading, there is one thing which every trader desires to know, and that is the

volume of business done. A Merchandise Account swelled with credits for returns and sales credited from which allowances have been made, will not give the volume of turnover without eliminating all such items. The more correct method would be to have a Merchandise Sales account and Goods Purchased account. To the debit and credit of these accounts would be charged allowances and returns, and their respective balances carried to a Trading Account, the credit side of which would contain sales less returns and allowances, and on the debit side stock on hand at commencement and purchases less returns. From the total of stock and purchases would be deducted stock on hand at closing. The debit side would also contain freight inwards, and, in a manufacturing business, anything which entered into the cost of production. The balance, representing gross profit, would be carried to Profit and Loss, and against it charged such items as would be properly chargeable to that account.

I feel that to say but a little of any account or book is to realize how much one ought to say. I can only trust, however, that I have given a hint of the broad practical teaching of accounts which I think should obtain in our Commercial Department. To what extent it is of that character I leave in your hands, and I can only add that—in so far as the work you are doing is not final in its intention, but rather that you are teaching the young minds committed to your training to look upon their exercises as mere guide books, and seeking to help them, in the time at your disposal, to look for their fuller development in the practical working at accounts in the office—you are nobly performing your task ; and with those of us who have turned our attention to accounts there can only be emblazoned on our banners one word, and that, “Excelsior.”

*THE UNIVERSITY'S COURSE IN COMMERCE.*

(Excerpts from paper read.)

S. MORLEY WICKETT, M.A., PH.D., TORONTO.

Every university must consider from time to time whether its scheme of study and teaching is adequate to present needs. If with the progress of knowledge any particular study or department of study grows in breadth and depth, and attracts an increasing share of thought, it is offered as their main subject or group by an increasing number of students; and thus the work of the university adapts itself almost automatically to the changes in the relative importance of the parts which different branches of knowledge play in the progress of the world. . . .

A year ago, in response to requests from the Canadian Manufacturers' Association and the Toronto Board of Trade, the University Senate instituted a course for a diploma in commerce. The course is designed to extend over two years, and lead not immediately to a degree, but to a diploma. A candidate may proceed to a degree by undergoing instruction and examination in certain additional subjects. By an unwritten law at the University any student presenting himself may enter the course; but only those who are able to pass the junior matriculation, with the omission of Latin, are really in a position to undertake the work specified.

The course embraces the following divisions:

(a) English, and any two modern languages.

(b) Mathematics in first year.

(c) Drawing (optional).

(d) Physics and chemistry, with as options in second year: geology and mineralogy; or applied chemistry; or history and principles of architecture; or electricity; or mechanical drawing.

(e) Economic theory, industrial history, banking, transportation, public finance.

(f) Commercial Law.

To the course are attached two prizes: one of \$250, granted by the Toronto Board of Trade, and a bronze medal by Mr. P. W. Ellis. There is also a silver medal awarded by the Political Science Club,

of which Club students in the course in Commerce are entitled to become members, for original research work of an economic nature, the medal being from the same donor.

The University's course in Commerce, it will be noticed, differs from a course at a business college. *Business Course*, *Technical Education*, *Commercial Education*, are current phrases that need revising. They imply training that is useful and good as far as it goes, but not at all suggestive of a liberal education. The university course seeks to provide an educational training that is not open to this reproach. In itself it appeals primarily to those who are equipping for managerships—sons of manufacturers and more ambitious mercantile students, as also to those qualifying for positions as commercial masters at our Collegiate Institutes.

What are the desiderata of a system of education in commerce?

We must set aside at once as unworthy of argument the suggestion that it is possible to construct an educational system which will be absolutely certain in its results, which will turn every boy into a competent business man, which will make a silk purse out of a sow's ear. No amount of teaching, or for the matter of that, no amount of cleverness will ensure success. Education is not like certain pills, a cure-all, though it is an excellent tonic. It can only make those with the natural gifts somewhat better; it can only make those not so well endowed somewhat less bad. We may, indeed, get good out of any system, and out of no system, and even in the absence of education. But the man without good education is apt to think without consecution, and to waste time and energy in futile argumentation. The educated man is the man who reflects and discusses problems in an orderly and consecutive way. The self-made man is often not well made, however good the original material.

In the next place, it is obvious commercial education does not take the place of apprenticeship. An employer need not expect a young fellow with a special education of this kind to be at the outset more useful to him than if he had entered a couple of years sooner. But there should be little doubt as to his greater efficiency in the near future. This of course touches the heart of the question. "Self-made Merchant," in one of his dashing letters in *The Saturday Evening Post*, writes: "I've always made it a rule to buy brains, and I've learned now that the better trained they are the faster they find reasons for getting their salaries raised. That was when I caught the connection between a college education and



business." These words of "a practical man" only put in market terms Bacon's opinion that "learned men with mean experience would far excel men of long experience and outshoot them on their own bow."

Should we expect our educational system to turn out only a general purpose student, *i.e.*, with a general intellect and moral training, which we hope will fit him for any action, for any pursuit? This, perhaps, at least; but ought we to add to that by making the student fit for some one thing? We have already gone far in agriculture, in medicine, in law, in mining, in engineering. Assuming that this specialization is perhaps desirable, where are we to stop? It is really a question of practicability in place and time. Instruction in shipbuilding would be superfluous in Winnipeg. The instruction will, moreover, usually lag somewhat behind public needs, especially, perhaps, in democratic countries. I think it can safely be accepted that in Canada a demand has existed for some time for men with a training such as the university is now offering. The example of the University of Toronto is being followed in some measure, I believe, by McGill, Queen's and New Brunswick. These are the four Canadian Universities where professorships in Political Economy exist.

This adaptation of higher instruction to the actual requirements of Canada should be copied to some extent, I venture to think, by our Public and High Schools. For example, some instruction in the elements of political economy and political science, value, wages, profits, trade unions, transportation, municipal government, might be profitably given. Than such studies there is no department more interesting, inspiring, instructive. . . .

It is interesting to note that in the very year in which the University of Toronto inaugurated higher commercial education in Canada, Professor Ashley, who was the first Professor of Political Economy in Toronto and in Canada, was busy organizing the new commercial University of England, the University of Birmingham. . . .

According to the educational reports of the last few years about one-third of those leaving the High Schools set out for the professions. This is a large percentage. The influence of the new course, through the High School commercial masters who presumably would be among its graduates, should act to some extent as a countervailing force. The present inadequate preparation of our

commercial masters is a matter, it need scarcely be emphasized, that merits immediate attention. . . .

The question is often asked as to the attitude of labor men to commercial education. Labor men are opposed only to trade schools; though even here their opposition seems to be growing less keen, in that it is opposition to their own children being given the best possible chance. The sons of well-to-do men can be given special instruction or sent abroad. An industrial school has in Germany and Austria often led to the recrudescence of an enervated industry, or to the introduction of a new one, while well-schooled mechanics have usually been able to enlarge the industry which they enter, and when they enter to create a fresh demand for ordinary labor. This, however, by the way. The University course enters in no way in competition with the mechanic. . . .

Is commerce a profession? And by providing special training do we run the risk of making it a close corporation, and so returning to the guild system of the middle ages?

Whether so, I am not prepared at present to discuss. We can content ourselves with remarking that when public support is given to other professions a demand must necessarily arise for ample provision for courses in commerce as well, so as to relieve the State of the imputation of unduly favoring one at the expense of the other.

The query as to whether commerce is a science or a profession, to return to it for a moment, seems to me to reflect the change in popular opinion of the dignity and standing of trade and commerce. The immense proportions that trade has assumed during the last twenty years, the exigencies of its organization and control are demanding the best equipped men. While the community of interests that commercial organization is bringing about—the social and ethical aspect of commerce—are but additional calls for training.

In conclusion, let me say that when visiting a leading technical college in a certain United States city, I received the impression that, speaking generally, the students there were being simply trained for traffic—"to do the trick." The presence of higher commercial instruction at our universities should act in this respect as a leavening and liberalizing influence. It should be felt throughout our whole educational system. It should help teach those equipping for commercial life to look upon business from a higher standpoint as a fit matter for science, as a subject not to be regarded

solely from the side of pecuniary gain. Nothing would go further towards securing sounder legislation in all questions of government, especially of currency and taxation, than a mastery of the theory of production and distribution by the leading men of the country. Nothing moreover, would be more helpful in making clear to them their exceptional possibilities for exerting a salutary moral influence within their sphere. The great labor problem lies at their door, and many other matters of public concern await their attention. True education bears not merely better business men; its children are better citizens. This is a point that unfortunately still requires asseveration. But old views are passing away; and among them is the belief as to the training that is calculated to yield its devotee a liberal education.\*

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\* In preparing this paper I have received several hints from an MS. kindly loaned me by Professor Mavor.

*PROGRESS IN BOOK-KEEPING.*

A. C. NEFF, F.C.A., TORONTO.

Book-keeping, like Grammar, is both a science and an art. You, as teachers, have chiefly to do with it as a science. It is your work to lay the foundation of the student's future business success, by teaching him the theoretical principles which he must afterward learn to apply to the record keeping of business, until with practice and experience he may develop into a capable and reliable accountant.

You do not teach the rudiments or the theory of medicine or law, but as business transactions are universal, so there is a universal need for a knowledge of book-keeping, the means of recording those transactions. The higher the grade of this universal knowledge, the safer and pleasanter will be the business relations of the people.

I believe no other branch of study is likely to be of greater every-day value, and that it is of the utmost importance that you should make it as practical as you can.

A large proportion of your pupils will have no further training in the subject, and their equipment will be such as you give them.

Of course you cannot be expected to turn out finished accountants, all ready to assume the responsibilities of the book-keeping and financial management of concerns where thousands of dollars are at stake; but those who have been well trained in the theory, and have a good practical view of the subject, will have a fair chance to attain success in the practice of the art.

The principles of book-keeping do not change, but methods do, and very materially indeed. Expert book-keepers in offices—men capable of independent thought—are constantly learning new ideas and short cuts in their work, their number and importance depending upon the ingenuity and skill of the book-keeper in his art.

You are only interested in such of these adaptations and changes as stand the test of experience and become well established in practice.

As few of you are in a position to practise book-keeping on a higher scale, you are at some disadvantage in keeping yourselves familiar with this progress of the art, and I hope to be helpful to

you by bringing you something new and of interest through the medium of a running sketch of book-keeping as it is practised in these offices.

You may not be familiar with the following method of explaining Double Entry.

In every business there are two interests—that of the proprietor and that of the business itself. The proprietor's interest is in the capital which he has put in the business and in its fluctuations, and these are represented by the Capital Account and its subdivisions, the Loss and Gain Account, and Proprietor's Private Account. All entries representing a loss or gain might be made on the Capital Account itself, but it has been found desirable to deal with the increase or decrease of capital at stated periods, through the medium of a Loss and Gain Account, which again is a summary of the several accounts representing each particular class of Loss and Gain.

The other interest in the business is that of the business itself, in the Assets and Liabilities. The accounts representing these, showing in what form the business now holds the investment of the proprietor, and the excess of the assets over the liabilities, showing the amount which the business now owes to him.

Each transaction which produces a gain, increases the assets or decreases the liabilities, and *vice versa*, if the transaction produces an expense or loss. In either case, both of the two interests named are affected, and the effect requires to be recorded on accounts representing each. All other transactions are simply exchanges or transfers of values to be recorded by transfers from one account to another. In all of them, one account, or set of accounts, requires to be debited with what another is credited.

The element of balance lies in the fact that for every entry for a change in the amount of property in the business, a corresponding entry is made to the debit or credit of the proprietor through some subdivision of Loss and Gain Account, and if all entries are properly made, the net result of the Asset and Liability Accounts of the business at the end of the term will be precisely the same amount as the Capital Account when increased or decreased by the net loss or gain.

Double Entry properly handled can be made so simple, and its advantages are so conspicuous, that I would teach it first, and would only teach Single Entry as something which may be tolerated in businesses of very minor importance. This would help to dissipate the current impression that Double Entry is difficult.

If teaching Book-keeping now, I would make a greater point than I did of keeping prominently before the pupils the ultimate object of the transactions, which is to add a net profit to the capital invested, and the object of the book-keeping, which is not only to record the transactions and keep the personal accounts clear, but also to furnish information for the manager as to how and where profits and losses occurred, and to keep readily available any information which might be required in case the books, which are now private, might become of public or semi-public interest, as in case of disputed accounts, dissolution of partnership, death of proprietor, loss by fire, or insolvency.

Book-keeping, as you teach it, is not much changed from the original Italian method. Its basic feature is the use of the Journal as the only posting medium.

In several European countries this feature is still rigidly enforced by law; but, especially on this continent, it is now the common practice to substitute other posting mediums, with the purpose of gathering information of certain kinds into monthly posting totals, this being done to such an extent that the entries in the Journal are reduced to a minimum.

The monthly posting totals are usually gathered by arrangement of the desired amounts in special columns in the posting mediums, or by classifying the transactions in separate books for each, with monthly totals.

The *Day Book or Blotter*, which was formerly used for the original entry, the history or particulars of the transactions, was superseded by the *Journal Day Book*, which added the particulars to the posting entries, thus combining the two, so as to save journalizing, with the consequent risk of error, and shortening any necessary reference to the entries.

I have just finished a system of books for a manufacturing and wholesale concern, and perhaps cannot impart my ideas better than by giving you a running sketch of it.

*Cash Book and Bank Account combined.*—These were originally Ledger accounts. We now commonly take them out of the main Ledger, and put them in a separate book or books, adding the Day Book feature, by using them to record the original entry of the particulars or history, and the Journal feature of making them a posting medium, while they retain their character of Ledger accounts for cash in the office and bank.

I submit the form used:

# CASH.

Date.	From Whom and for What Received.	Account to Credit.	Ledger Folio.	Dr.			Cr.		
				Cash Received.	Bank Deposits.	Interest and Discount.	Sales Accounts.	Bills Receivable.	Cash Sales.
1902									
March 1	Cash Balance on hand .....			\$25 00	\$425 00	\$ 3 00	\$500 00	\$768 00	\$55 00
2	Bank balance, per Pass Book .....	Acct.		87 00	742 00	26 00			
	Jones & Co., on account .....	B. R.							
	Bills Receivable Discounted .....								
	Cash Sales .....			55 00					
3	G. T. Ry., Freight Rebate .....	Misc. purch.		8 00		8 00	163 00		
	Mills & Co., Cheque .....	Acct.		155 00	105 00				
	Deposit .....	Cash		330 00	172 00	37 00	253 00	768 00	55 00

Date.	To Whom and for What Paid.	Account to Debit.	Ledger Folio.	Cr.		Dr.		Mise. Freight and Duty.
				Cash Paid.	Bank Cheques.	Interest and Discount.	Expense.	
1902								
March 1	Cheques outstanding.....	Expense		\$3 00	\$ 95 00		\$3 00	\$9 00
	Good & Co., Brooms.....	Freight		9 00				
	G. T. Ry. ....	Acct.			155 00	\$5 00		
	Brown Mfg. Co., Cheque.....	Acct.			57 00		\$57 00	
	Walker & Co., Draft returned.....	Bank.						
3	Deposit.....			105 00	367 00	5 00	3 00	9 00
				117 00			57 00	

You will notice each entry goes direct into Cash or Bank column and that the other columns are only used for gathering therein to the end of the month the amounts which belong to them, so as to post one amount for the month, instead of many.

Notice also the peculiar use of the Discount column, especially in the case of Bills Receivable taken to the bank for discount.

The balance of the two Cash columns shows the amount of cash in the office, and the balance of the Bank columns shows the balance in the bank, or overdraft, *at any time*.

I try to avoid any *unnecessary* expansion of the columnar system, lest it lead to errors, and to cover up information which ought to appear upon the Ledger. I do, however, usually add a Bills Payable column on the credit side.

*Purchases.*—These are recorded in a separate journal kept for the purpose, the record showing from whom purchased, the dates of invoices, classes of goods, terms of payment, and amounts. These are posted from day to day to the credit of the different firms, and the total is gathered till the end of the month, and then debited to *Purchases* in one amount.

*Returns and Allowances* to be deducted from purchases are entered by themselves in the back portion of the book set apart for the purpose, the items being posted to the debit of the individual firms, and the monthly total being credited to the purchases.

*Sales* are charged in the Sales Book, used for that purpose only. Large houses use two books alternately—one in the office being posted, while charges are being made in the other in the entry or shipping room.

Some firms now write invoices in copying ink, and take a press copy. Others write the invoice on the typewriter, keeping a carbon copy, and listing the amounts for posting. In either case the amounts are posted daily to the debit of customers, and the totals are gathered into one amount at the end of the month, and credited to *Sales*.

*Returns and Allowances off Sales* to be credited to customers are treated in a manner similar to that used in the case of returns off purchases.

*Bill Book.*—For the record of Bills Receivable and Bills Payable I have discarded the old stock form, and now use an ordinary Journal with a few lines added. The headings of the columns are, "Date of entry," "No. of note or draft," "Name of firm and place,"



"Date of note," "Term," "Due date," "Amount," "Discount," "Ledger folio," "Where payable," and any other remarks.

BILL BOOK.

Date of Entry.	No.	Note or Draft.	Name.	Residence.	Date of Note.	Term.	Due Date.
April 2	145	Note Draft	Jones & Co.	Barrie Kingston	April 1	1 mo.	May 4
5	146		Robinson & Co.		Apr 13	2 mos.	June 6

Amount.	Dr. Discount.	Led. Folio.	Where Payable.	In whose favor.	Other Remarks.
\$135 00	\$3 00	422	Standard Bank, Barrie	Our own	
247 00	5 25	327	Dominion Bank, Kingston	" "	
	\$136 00				
		572	Dr. Discount Total for month		
\$5372 00		585	Dr. Bills Receivable Total for month		

The object of this form is to throw information not necessary when posting, to the right out of the way. The use of the discount column is the most convenient arrangement for crediting discount to a customer, as it saves a distinct entry and separate posting.

*Diary.*—I use a foolscap Ledger as a diary of Bills Payable coming due, distributing the days of a month over the two pages of each opening of the book, or in the case of a larger business, devote a page to each week. The bills are entered opposite their due date at the time of issue or acceptance. Thus the Diary shows at any time the amount payable in each month, a most valuable feature to the manager of the business.

DIARY.

April.	1902 Bills Payable Due.	Amount.		Accounts Due for Discount.	Amount.
Mon. 7	No. 140 Jones	\$326 50		Macdonald, 3% off	\$427 00
	145 Scott	175 00			
Tues. 8	143 Mallory	125 00		Holmes & Co., 5% off	375 00

*Cash Journal.*—This is what you know as the "Six-column Journal," with the addition of many special columns for monthly posting of such accounts as produce many entries. I have never favored its use, as I think it is only adapted to a small business where subdivision of labor is not much required. Its tendency is to absorb the details of transactions and produce a ledger in summary.

*Ledger Forms.*—I very much prefer what is known as the Deposit Ledger Form. It has debit, credit, and balance columns, side by side, the entries following each other in order of date, irrespective of whether they are debit or credit. It shows balance, wherever required, and gives a much clearer view of a complex transaction than the ordinary form gives. It is not necessary or desirable to extend the balance after each posting.

*Loose Leaf Ledgers.*—Especially for sales or customers' accounts, the Loose Leaf Ledger is coming into common use. Each account gets a permanent number, and they are arranged alphabetically. When a sheet is full, or an account is closed, it is transferred to a reserve binder, thus leaving only active accounts in the current ledger.

*Subdivision of Ledger.*—In opening a new ledger I am very particular as to the location of accounts, arranging them so that a Trial Balance will be in the consecutive order required for the purpose of annual statements. I first of all decide upon what nominal accounts will be required, and what space is necessary for each, in order to avoid transferring any of the accounts until the ledger is nearly all used.

The main subdivisions used are: (1) Customers' Accounts; (2) Creditors' Accounts; (3) Employees' and Special Accounts; (4) Profit and Loss Accounts; (5) Bills Receivable, Bills Payable, and other Asset and Liability Accounts; (6) Proprietor's Private Account; (7) The Profit and Loss Account; (8) Capital Account.

*Private Ledger.*—We very commonly provide a private ledger, to be kept by a member of the firm or a trusted employee, and containing such accounts as it is not desirable to expose to the study of inquisitive minds.

It usually contains the Capital Accounts, Profit and Loss Accounts, Merchandise Account (totals only), and a few leading Property Accounts, or other inactive accounts. If the amount of the Inventory is not known, the condition of the business cannot then be ascertained from the other books. It is usual after the monthly

posting of this ledger by the one in charge, to give the net balance of this private ledger to the book-keeper, with which to complete the Trial Balance of the other ledgers.

*Proof Accounts.*—Another method of completing the Trial Balance is to keep in the general ledger what is known as a Proof Account of the Private Ledger—posting to it all the entries which are posted to the Private Ledger. The balance of the Proof Account must agree with the net balance of the private ledger at all times, but conveys no other information. This use of Proof Accounts to represent subsidiary ledgers is common among our large financial institutions.

*Merchandise or Trading Account.*—In an ordinary merchandise account the debit side mingles purchases and debits off sales, the credit side mingles sales and allowances off purchases, so that neither net purchases nor net sales can be ascertained without considerable calculation. To avoid this trouble, it is now common to subdivide the account into two, viz., Purchases and Sales.

*Profit and Loss Account and Trading Account combined.*—Very commonly only the gross profit on merchandise is reported, and there is no definite plan of arrangement attempted in the Profit and Loss statement.

I now regularly report the main features of the Trading Account, and have gradually adopted a standard of arrangement of the Profit and Loss Account. I submit it below for study. You will find there is a reason for the order in which the items appear.

## PROFIT AND LOSS ACCOUNT.

### MDSE. OR TRADING ACCOUNT.

1901.			
Jan. 1.	Stock, per Inventory .....	\$21,500 00	
	Purchases, less returns and allowances .....	41,850 00	
	Freight and duty on purchases .....	5,725 00	
	Wages—applied to goods sold .....	3,570 00	
	Total cost of goods .....	\$72,645 00	
	Sales, less returns and allowances .....		\$70,142 00
	Stock, per Inventory .....		23,500 00
	Gross gain balanced down .....	20,997 00	
		\$93,642 00	\$93,642 00
	Gross gain brought down .....		\$20,997 00
	Rent and taxes .....	\$1,285 00	
	Light, heat and power .....	\$428 00	
	Less coal on hand .....	75 00	
		\$353 00	
	Carried forward .....		

<i>Brought forward</i> .....		
Insurance .....	\$957 00	
Less premiums unexpired .....	425 00	
		\$532 00
Salaries of management and office .....		3,780 00
Printing, stationery, postage, phones and telegrams .....	687 00	
Less stationery on hand .....	125 00	
		562 00
General expenses .....		570 00
Interest, discount and exchange .....		870 00
Salesmen, salaries .....		4,825 00
" expenses .....		3,760 00
Advertising .....		1,258 00
Lost accounts and notes .....		640 00
Gain for 12 months carried down .....		2,562 00
		<u>\$20,997 00</u>
		<u>\$20,997 00</u>
Gain brought down ..		\$2,562 00
Written off furniture .....	\$105 00	
" " real estate .....	640 00	
Net gain to Surplus Account .....	1,817 00	
		<u>\$2,562 00</u>
		<u>\$2,562 00</u>

N.B.—Many firms calculate on the Statement the percentage upon the net sales of the gross gain—the several items of expense, the total general expenses, the selling expenses (which are separated above), and the net gain—thus forming an accurate basis of comparison with past and future years.

*Balance Sheet.*—I have also adopted a standard arrangement of the items in the Balance Sheet, which I submit below. The principle is to first put down those assets, which are the most readily available for the purpose of meeting liabilities, and to first state the liabilities which are the most firmly settled, and last of all to deal with capital and accrued profits.

## THE JONES BROS. CO., LIMITED.

### BALANCE SHEET AT DECEMBER 31st, 1901.

ASSETS.		
Cash in office .....		\$146 00
" in Bank, per Pass Book .....	\$1,742 00	
Less cheques outstanding .....	350 00	
		1,392 00
Bills Receivable on hand .....		390 00
Accounts Receivable, per list from Ledger ..		8,480 00
Stock-in-trade, per Inventory .....		23,500 00
Stationery, " " .....		125 00
Coal, " " .....		75 00
Insurance premiums unexpired .....		425 00
Furniture and fixtures, per Inventory .....		890 00
Real estate and buildings .....		18,500 00
		<u>\$53,923 00</u>
Total assets .....		<u>\$53,923 00</u>
<i>Carried forward</i> .....		

*Brought forward* .....

LIABILITIES.

Mortgage payable .....	\$8,000 00	
Bills payable, due Bank .....	7,000 00	
" " " others .....	4,326 00	
Open accounts payable.....	12,480 00	
	<hr/>	
Total outside liabilities .....		31,806 00
		<hr/>
Net assets .....		\$22,117 00
<i>Capital Stock</i> paid up .....	\$16,500 00	
Surplus last stock-taking .....	3,800 00	
Profit and Loss Account, net gain .....	1,817 00	
	<hr/>	
		\$22,117 00
		<hr/>

The form submitted is known as the Report Form of Balance Sheet. In England a form is commonly used which places the liabilities on the left-hand side and the assets on the right-hand side, and putting down the capital as the first item of liability.

*The Schedule Form* of Combined Trial Balance and Statement described in works on book-keeping, is seldom used in business, though it has value in assisting a student to trace the connection of the accounts with the Profit and Loss Account and the Balance Sheet.

*The Balance Account*, as usually taught in schools, is not often used in business.

## PUBLIC SCHOOL DEPARTMENT.

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*THE BOY BEST EQUIPPED FOR THE DUTIES OF LIFE.*

W. F. MOORE, DUNDAS.

It is somewhat difficult to select a new subject for the President's address, and, having found a subject, it is difficult to keep from saying many of the things that have been many times said before, but, if we remember what was said at previous Association meetings, with the same care that we remember last Sunday's sermons, the probabilities are that we may say a good many of the old sayings and not be detected nor charged with plagiarism. I shall neither try to avoid nor repeat any arguments or statements of former years, but shall give as well as I can the thoughts that have been in my own mind for some time.

The Boy best Equipped for the Duties of Life. This subject opens up a wide field of thought.

Physical.

Moral.

Mental.

In the past we have had a good record, physically, for our Canadian boys. Who does not remember with pleasure the days of Ed. Hanlan and rowing, when all the aquatic world bowed before his prowess? In lacrosse, Ross McKenzie, J. L. Hughes, and many others? For putting the shot, throwing the hammer and other heavy muscular exercises, George R. Gray, of Orillia, is well known; and who has not heard of the famous Rennies and Flavelles in curling; or of the Hamilton runners, Bernard, Sherring; or of Bertram and McVittie at Bisley?

When the Soudan expedition, seventeen years ago, required boatmen to overcome the difficulties of the Nile, Canadian boatmen were called, and success immediately waited on the British arms, and at present we are proud of our Canadian boys in the far-off fields of Africa. Hundreds of other incidents might be cited, but sufficient has been said to show that we have the heritage of strong, athletic bodies, capable of great endurance, and, as the care and

development of the whole boy are placed largely, almost altogether, in charge of the teacher, we must see that this important duty is not neglected. I think that it is the duty of the teacher to see that all that can be done shall be done for the protection and development of the body.

Frequent calisthenic exercises should be given, not once a week, not once a day, but frequently every day. Every teacher is, or should be, acquainted with half a dozen or more simple exercises, and, between each two lessons, stand the pupils up for a few minutes, with windows open for fresh air, go through these exercises vigorously. You will probably find that that restlessness, playing with rulers, shuffling the feet, will suddenly cease. Some color will come into the cheek, and brightness into the eye, and attention to the mind, that might not otherwise exist.

A strong physical boy is more needed than a strong mental mind. Yet, cast your eye over that time-table that you so neatly prepared, and so proudly hung up before your class. How many minutes a week are you giving to geography? Say 150, grammar 200, arithmetic 200, and so on, for the whole course, so many minutes per week, and you look at it, and your principal and your inspector look at it and initial it "O.K.," and yet there is probably only one space of thirty minutes per week devoted to calisthenic or extension exercises; and still you expect to have healthy, interested pupils, and you expect to correct those stooped shoulders and contracted chests by saying "sit up," half a dozen times a day, to some of your boys and girls who have not shoulder and chest muscles to "sit up" and stay up with. Can you, in reason, expect strong, healthy children from such a course of training? You need not expect, and, further, you cannot get them. Our boys and girls are generally strong and healthy, largely due to parentage and climate, but in spite of the school system. See to it, persistently and unwearingly, that your pupils sit, stand and walk in conformity with the best rules of health. Try the exercises between lessons, and do not expect too much in too short a time.

#### THE MORAL DEVELOPMENT.

It has been said that no person can have too much education unless the devil give him the application of it. The great criminals of the world, those who have committed crimes that long have defied the skill of the detectives, have been men of good, sometimes of superior education, bank defaulters, dishonest book-keepers,

forgers, counterfeiters and many others are in this list. These are men with unevenly balanced minds. Men who received good mental training, but who did not receive, or were not impressed by the moral training of home, church, Sunday School, day school and environment.

The remedy is not easy, in fact it presents many difficulties. Heredity is responsible for so much of the trouble. I believe that a person may be naturally dishonest or untruthful, just as he may be naturally red-headed or bow-legged. This moral depravity we may call atavism. What is the remedy? As far as the teacher is concerned, a good moral example is very helpful, and talks with the children on the subject are good. One teacher I know of corrected, or thinks she did, a habit of cheating on the part of one of her pupils, by drawing his attention to the fact that, as his father was in business, and enjoying the confidence of his customers by fair dealing, so the son might expect to succeed *to* the business and *in* the business if similar methods were adopted. The boy seemed to be impressed. He is young yet, and some of the things I have noticed in his career since have been a little off color, but maybe some good was done. Scolding, for a moral fault, does no good, punishing does less. These only make the culprits more careful to avoid detection. I think that an appeal to the manly qualities of the boy, and every boy has some, if it is only personal pride, or pride of family, is the only successful plan to be adopted. One thing the teacher should not do, and that is to think and act as if all pupils were bad and not to be trusted.

There is a business principle, which is first-rate in business, and is adopted by all good business men, it is, believe every man a rogue until you have proved him honest. That is a principle that must be studiously avoided in dealing with children.

We now reach what we, as teachers, are supposed to be particularly interested in, and with what we have chiefly to deal, the mental training of the child; and here I have to acknowledge, that since I commenced thinking on the subject, and that is nearly a year ago, I have been completely converted from a certain belief to another one, and when I have explained myself, I am afraid many of you will say that the conversion is from a lofty to a baser one. I believed and practised for years that education should be cultural, the study of literature was to enable us to understand and enjoy the subtleties of Browning, Tennyson, Shakespeare, Dickens and others. The study of geography was to enable a pupil to under-



stand, without travel, the beauty of the Muskoka region, or the Irish lakes, or the Scotch mountains, or the Alpine scenery, or the grandeur of the Rocky Mountains, or the gloom of the Colorado canyon, the illimitable prairie and the boundless ocean, and so on with the various studies.

Now I am of the opinion that education should be first, one of utility, one that will first of all enable a boy or girl to make a livelihood. "Had you given me a useful instead of an ornamental education I might not now have been here," wrote a tramp, in faultless Greek, on the bottom of his tin pan in jail, awaiting sentence for forgery.

I feel considerable hesitancy in putting this view forward, down go my images, down have gone the ideals of years. I have become, as far as my former ideals are concerned, a veritable iconoclast. And what has caused this change of opinion? Just because I have thought carefully about the matter. Understand me, I do not object to culture, but the idea of utility should precede it. With this thought in my mind I would ask that very careful attention be given to those Public School studies that are strictly necessary in the transaction of ordinary business of life. Arithmetic, reading, spelling, writing and composition.

Arithmetic, which is frequently called the logic of the school-room, should be carefully taught, especially addition, in which the pupil should be drilled until he is able to add quickly and accurately, very accurately. So with subtraction and multiplication and division. One of the greatest difficulties an employer, say a store-keeper, or bank manager, or manufacturer, has to deal with is the inability of his boys, or clerks, to make the simple calculations requiring the use of these four elementary rules. Fractions, decimals, percentage and interest and discounts should be well understood.

Not enough time or attention is given to reading in our schools. This is particularly true of spelling, but probably that subject from which we get the poorest results is writing. A few years ago, some faddist, from Kingston I think, thought he had found a remedy for all our woes in that direction, and vertical writing was introduced into our schools with a great flourish, and it was adopted far and wide, with a result that we have a hermaphroditic thing in our schools and country that is a sight for gods and men. Much harm has been done by vertical writing, it is slow and clumsy, and does not seem to have one redeeming quality to make it superior to the old style.

Pupils leave the Public School for the High School too young. This, I know, is contrary to Mr. Seath's opinion. See his report, page 266. As soon as a pupil reaches the High School he is expected to take up a wide course of study, languages and theories and ologies and isms, which are all good if the pupil can afford not less than four or five years in their study. 95 per cent. of our pupils never enter the High School, of these about 30 per cent. leave before the end of the second year, about 20 per cent. of the boys in our Public Schools never enter the senior fourth class. Attention, very careful attention, should be given to the pupils in our Public Schools, and the work of the Public School should be extended so that pupils should stay at least one year longer in the Public Schools.

This extra time I would not spend on some extra studies, there are plenty of studies on the course now, and too much of some studies—History, for example. I would spend the extra time in getting up better, more thoroughly, the work that is now on the course. Let the per cent. for passing to the High School be not one-third and a half mark, but a half and two-thirds. Raise the value of reading, writing, spelling and composition, decrease the value of history and geography, and of these two subjects take away about two-thirds of the work that now has to be done.

Now, in conclusion, do not understand me to say that the cultural value is not to be considered. I do not think so. I have not said so. What I have contended is that our work should be of a nature to prepare our boys to earn a livelihood. If these boys are fortunate enough to have parents who can afford to give them a good education, Public School, High School, University, then too much attention cannot be given to the cultural and æsthetic studies. Let all the power of rhetoric, the beauty of poetry, the influence of color, the humanizing power of music, the concentration of geometry, the broadening of the classics, the patriotism to country, the love of home, be so developed in the mind and life of our boys and girls that a nobler, grander race of men and women than have been will be the result. And in this good and noble work I wish you God-speed.

*THE PROGRESS OF MODERN EDUCATIONAL THOUGHT.*

(An Extract.)

S. B. SINCLAIR, PH.D., OTTAWA.

The progress of modern philosophic thought has been from static to dynamic, from existential to functional, from unrelated to related. The earlier philosophy investigated the problem of existence. The tendency in later years has been to shift the focus, and to ask the question what is the meaning and purpose of life and how can this purpose be best attained? This functional view makes "perfection consist not in a having and a resting, but in a growing and a becoming," and directs its energies upon the discovery of the best means to the attainment of such perfection. Truth is sought not only for its own sake, but also, and more especially for that to which it leads, for the assistance it will furnish in future procedure. Science thus becomes essentially teleological in character, and finds an underlying unity which gives coherency and identity to all experience.

The universal and the individual, law and fact, theory and practice, instead of being treated as independent and isolated, are considered as different aspects of the same experience.

These philosophic tendencies furnish the key to the educational trend, for the systems of education proposed from time to time have been reflections of the philosophic views held implicitly or explicitly by those who have been instrumental in their construction.

On the practical side, an excellent opportunity for studying the advances made in education has been afforded by the exhibits at World's Fairs in recent years. As a result of a somewhat careful observation and comparison of the World's Fair exhibits at Paris in 1889, at Chicago in 1893, and at Paris in 1900, I have noted the following tendencies which seem well-nigh universal and which, in my opinion, are practical developments of the thought evolution to which I have alluded.

1. A wider view is taken regarding the scope and purpose of education. The one-sided "Instruction," "Development," and "Follow Nature" theories have given place to a more comprehensive and rational conception which makes character or culture

(involving both knowledge and discipline) the true aim of education, and holds that the learner is to gain control of himself and of the forces about him, never forgetting that such *mastery* is for *service* for the purpose of helping himself and others.

According to this larger view, true education is both instruction and development. It is natural and artificial. It concerns the individual in his totality, physical, mental, spiritual, religious. It is for the present and for the future, for the individual and for society. It involves the self-activity, the self-realization of the learner, the guarding and controlling influence and inspiration of parent and teacher, and the assistance of the community and the state.

2. There is a tendency on the part of society to give practical expression to the fact that the school is a social institution. As examples of this, note the increasing interest taken by the respective governments of European countries in educational affairs as compared with that of ten years ago, and (at the other pole) the recent bequests to educational institutions by wealthy private citizens.

The tendency to centralization, co-operation and specialization is evident in educational as in all other lines of human activity. Small country schools are being massed into large graded schools. The artificial gulfs previously established between the Elementary and the Secondary schools, and between the Secondary school and the University are being bridged over, and it is being recognized that the success of each is conditional largely upon the advance of the others. Specialization of teachers has been introduced into the High Schools and is being proposed for, and in many cases applied in, Elementary Schools.

3. There is an increasing demand for scholarship all along the line. A standard which was deemed quite satisfactory ten years ago is considered inadequate to-day. There is a growing sentiment in favor of more practical education. The term practical here does not necessarily mean a low form of utility which places all education on a dollars and cents basis, and makes the ultimate educational criterion consist in the preparation to earn a livelihood. It does, however, imply that education should have functional value, in other words that each advance made should be an aid to further advance.

4. As in the spheres of medicine and civics, the tendency has been from the quack herb doctor to the trained physician, and from the

incompetent walking boss to the trained engineer, so in education the tendency is to select as superintendents and teachers only those who are educational specialists in the truest and best sense.

The wider functional view of education has produced a demand for the extension and enrichment of the professional training course.

Sound scholarship, natural aptitude, physical vigor and strong personality are essential prerequisites for such training. Education is studied as an independent science having as its aim the endeavor to gain control of the educational process, and including in its technique all that will be of value in furnishing such control and insight. The tendency is to strengthen the professional training course, not by adding non-professional studies which can be better prepared in the High School and University, but by making the course sufficiently extensive and scientific to enable the teacher in training to gain an insight into the problem of education as to aim and method, to know something of what has been and is being done in different countries regarding education, and to develop on the practical side by coming in actual contact with children in a laboratory school for experimentation and in a practice school for teaching under criticism.

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*SHOULD THE ENTRANCE EXAMINATION BE ABOLISHED?*

E. W. BRUCE, M.A., TORONTO.

I do not suppose this question would ever have been raised had it not been for the continued multiplicity of examinations; the repeated yearly and half-yearly changes in the prescribed courses for the same; the papers too often prepared by those who were not specially fitted for the work; and the results of the candidate's answer papers too often placed in the hands of examiners incapable of valuing these answers from the standpoint of the pupil's mental capacity. The apprentice should not be expected to produce a piece of work equal to that of the finished workman.

As the Entrance Examination has been in existence now for upwards of a quarter of a century, this is a question in the consideration of which we should hasten slowly.

What is the object of the Entrance Examination? It is a test of fitness to profitably enter upon the work of the High Schools. Then, before we can answer this question, either negatively or affirmatively, we should consider,—What is the effect of this examination, as at present conducted, upon the Public Schools?

Five per cent. of our pupils enter the High Schools. Is the preparation for the present Entrance Examination the best possible for the needs of the other ninety-five per cent? If so, then there should be no objection to the present Entrance Examination course.

In introducing this subject for discussion, I intend to discuss, briefly, that the present entrance course is not the best possible for the needs of the whole community.

What would be an ideal course? Without entering upon the details, every pupil upon leaving school should be a good, fairly expressive reader; be able to write a good hand; be accurate in arithmetical calculations and have a fair knowledge of commercial everyday arithmetic; be an accurate speller; be able to speak and write his mother tongue correctly; be acquainted with the resources of his own country, her industries, her trade, how these may be expanded; have an acquaintance with and a knowledge of good literature; and be intelligent and able to take an independent view of all subjects within his grasp.

How does teaching for the Entrance Examination meet these requirements? My experience has been that if you wish pupils to

pass the Entrance Examination, you must specially prepare them for it, and teach with that end in view. Why? Because heretofore the papers have been, too often, unfair, unreasonable and impracticable. This being the case, how does the present entrance course fail to meet the requirements just mentioned?

In Writing.—No one ever heard of a pupil failing on account of his writing. Since nobody is ever plucked, this subject is forced into the background, until, with the exception of the Americans, the Canadians are the poorest writers in the world.

In History.—The aim of the school should be to develop in the pupil a love for the subject, a knowledge of the sources of historical information, and he should leave school with a keen appetite for the further prosecution of the study. But under existing circumstances the teacher is compelled to furnish the pupil, in the most condensed form, the main facts, that he thinks an examiner is likely to ask the pupil. These facts can have little or no interest. The pupil is held down to a disagreeable task, and leaves school with a deep-rooted dislike for the subject.

How different would it be were our pupils of the second and third book classes furnished with supplementary readers and story books, on great names in Canadian history; great events in Canadian history, such as the work of the Jesuits, the confederacy of the Iroquois, the Huron nation, the fur companies, the discovery of the Mississippi, the English Conquest of Canada, the Coming of the United Empire Loyalists, the first Canadian Parliament, the War of 1812, the Canadian Rebellions, the building of our canals, the building of the Grand Trunk and Canadian Pacific railways, the Confederation of the Provinces, etc.

In the fourth book class, how interesting it would be both for the teacher and the pupils, to have all these isolated facts woven into a continuous narrative, taking into consideration the social conditions of the people at these various times, how the country was governed and also what changes took place from time to time in civic as well as in government matters.

But however desirable this work, however keen-sighted the teacher as to its necessity, who will claim that this work can be done with the Entrance Examination and its tale of percentage at the end of the session?

In Literature. All that has been said of history is true in even a greater degree in literature. When an examination is held on a prescribed text, the teacher is required to make a word by word

study of the text, and oftentimes the general theme is lost sight of under the heap of minute details. The pupil is burdened with the meanings of isolated words, geographical and other references, and many other matters of little moment in the development of the general subject.

The aim of the school should be to give the pupil an acquaintance with some of the masters of a good English style. The subjects chosen should be of such a character as to be within the comprehension of the average pupil. The pupils with the teacher should read extensively rather than minutely. The duty of the teacher should consist, by timely question and suggestion, in securing a recognition of the main features of the article read, the skill that the author displays in the development of his theme, the leading characters and the part that each serves in the general scheme. He should recognize the excellencies of the selection studied and its weakness. When the works of several authors have been read, it would be fair work to compare the merits of one with those of another. The study throughout is thus fresh and vigorous, and the pupil is not wearied with accumulated detail.

One month might be devoted to the study of a single author, as Washington Irving; another month to Kingsley's "Greek Heroes." The poets would not be overlooked. A dozen selections might be made from Tennyson; another dozen from Wordsworth; Sir Walter Scott could furnish us with a longer selection. Pupils thus acquire a wide range of choice reading. The teacher opens the door to the vast storehouse of the world's best thoughts and of the world's best men. And the pupils would leave school with a taste developed and an appetite keen for the best literature.

The Honorable the Minister of Education in his last report uses the words: "The child that by the age of fourteen has not read Robinson Crusoe, Hiawatha, Pilgrim's Progress, The Stories of the Greek Heroes by Kingsley and Hawthorne, The Lays of Ancient Rome, Paul Revere's Ride, Gulliver's Travels, The Arabian Knights, Sleepy Hollow, Rip Van Winkle, The Tales of the White Hills, The Courtship of Miles Standish, Scott's Tales of a Grandfather, Marmion, and Lady of the Lake, The Story of Ulysses and the Trojan War, of William Tell, Alfred and John Smith, of Columbus, Washington, and Lincoln—the boy or girl who has grown up to the age of fourteen without a chance to read and thoroughly enjoy these books—has been robbed of a great fundamental right, a right which can never be made good by any subsequent privileges



or grants. It is not a question of learning how to read—all children who go to school learn that; it is the vastly greater question of appreciating and enjoying the best things which are worth reading."

Again, who can say that this is an ideal to be attained with the Entrance Examination and its tale of percentage to mark the close of the session?

In Arithmetic. I feel safe in appealing to the experience of you who are present; is it not a fact that, for a year preceding the Entrance Examination, a considerable portion of the teacher's time in this subject is devoted to the collection of type problems upon which the pupils are drilled in the anticipation of the puzzles awaiting them on the Entrance Examination paper? The time thus spent could be more profitably employed in acquiring a broader and more practical knowledge of the subject, and of acquiring accuracy and expedition in the performance of arithmetical operations. But here, as before, though the teacher may not approve of the work he is doing, yet the experiences of the examination demand that he must have his pupils ready for whatever may find a place in the test papers to be submitted to them.

In Spelling. For one, I have no objection to the time that any teacher may devote to spelling. However, in the past the nature of the entrance spelling papers has not been of such a character as to produce the best results. The candidate is tested generally upon words that, in many cases, never have entered into his own vocabulary. In the preparation of spelling lessons, the pupil should prepare the meaning of the words as well, and be prepared to use these words properly in sentences. It is patent to any one that a boy will never be required to spell, in actual life, the words he does not know how to use.

I would not set a special paper on spelling. The spelling marks, deducted from his written answer papers, are the best test of the extent to which he should be penalized for poor spelling. In these he has made use of his own vocabulary. And it seems to me the best course to pursue, in the Entrance Examination for spelling, would be to credit the candidate with fifty marks less the number of mistakes made in spelling on all his papers.

In Grammar. Pupils should be familiar with the sentence and its structure, the parts of speech and their inflections. But you know that too often has it been the case, that cranky and catchy questions are not avoided on the present entrance grammar papers.

In Composition. I venture to say that not one candidate in twenty has even the most elementary knowledge of the requirements of the subject. Every pupil should know how to construct a sentence so as to make that sentence say just what he means. He should know the simple rules of punctuation. He should have a knowledge of paragraph construction, of the continuity of the composition, by showing clearly the relationship of the several paragraphs to one another and to the development of the theme as a whole. But whoever heard of a candidate failing in composition? However poor his stuff, he is sure of 50 per cent. Consequently this subject is slighted in the interest of other subjects.

In conclusion, I have touched more or less on most of the Public School subjects of study. And to my mind, the Entrance Examination course, judged from the type of examination papers, is not the best possible for the needs of the community. We, who have been preparing pupils for this examination, have been trundling them in carriages rather than making them walk themselves. We have been forced to do much of their work rather than make them do their own work.

When a boy leaves the Public School to enter upon a High School course, we know it is desirable that he should possess such an elementary knowledge as will enable him with profit to himself, and without hindrance to his fellows, to pursue in company with them the work prescribed for the advanced course. Test him if you will, but let the examination be such that the preparation therefor will not, in the least, hinder or hamper the work of the Public School being properly and best done,—that the teacher may not be compelled to teach for examination.

SHOULD LESS TIME BE GIVEN TO ARITHMETIC IN THE  
PUBLIC SCHOOLS?

A. WEIDENHAMMER, WATERLOO.

Whether I answer this question in the affirmative or in the negative, I feel that I am treading on dangerous ground. By some we are told that we are devoting too *much* time to arithmetic, by others, and particularly by business men, that we are not devoting *enough* to it. But, whether we look at the question from either the cultural side or the utilitarian, this fact stands out prominently, that no boy or girl is fitted for any position or calling in life without a thorough grounding in the fundamental rules in arithmetic, and in the case of a boy, a fair knowledge of commercial arithmetic is a necessity if he is to become even an intelligent "hewer of wood or drawer of water."

To me it is gratifying to see that an effort is being made by some of the leading educators of the Province to show the undue importance and prominence which has been given to the subject on the programme of studies for the schools of Ontario. It has held undisputed sway on the time-tables of nine-tenths of the teachers of the Province, and that this is a mistake no one who has given the subject careful attention will deny. Our educators are beginning to realize the fact that arithmetic must not be treated as the *most* important subject, but as only *one* of the principal studies on the curriculum.

The very prominent place given to the subject on the Public School programme is awakening serious misgivings in the minds of thoughtful educators. Some teachers devote the cream of the day to instruction in this branch, and I am afraid, it might be added, that the cream or bloom of the lives of many of our children is being thoughtlessly sacrificed at the same exacting shrine.

Is it not a positive fact that the average child has an intense thirst for knowledge before entering school, and should we not meet him with such conditions as would satisfy his longing to investigate the ample field, attracting his attention in every direction. The extent to which this is done is very limited, but, instead, we make constant appeals to dormant faculties, with the result that we create in the child a distaste for school and study, to the

lasting injury of his after-life. This explains much of what is usually termed dullness, so prevalent among pupils, that lack of interest which teachers are trying to cure by emphasizing the influence of examinations. The mischief that has been worked can be seen by the fact that nine-tenths of the present student-world are working to pass examinations, and begin original research and investigation only after they have finished school life. After they have done with school, college or university, they resume the child's attitude towards the great volume of nature, with, in many cases, little better than the child's vantage-ground.

Principal Scott, of the Toronto Normal School, in a paper read before the Training Department of this Association, hit the nail on the head when he said: "Teachers are beginning to realize that what formerly was called thoroughness may be the means of developing the child into a dullard. I can recall two or three methods of teaching arithmetic which were to produce Newtons by the thousand. Mental analysis was one of these. What was an excellent training for children of thirteen or fourteen was forced upon pupils of eight or nine. Children who were marvels at nine in mental arithmetic, became dull at fourteen, and, most serious of all, had lost entire interest in the subject. Overstraining in the primary grades results in either exhausted power or burnt-out interest which, in either case, is fatal to future progress."

This pedagogical sin we are committing to-day as frequently as ever it was committed in the past. Is this to the credit of our much-boasted school system? Must our methods of instruction be so divorced from the true philosophy of education as to blight and dwarf instead of to develop? I hope not.

Our schools do not exist for the purpose of making *arithmeticians* to the neglect of other important objects. They are supposed to be instituted mainly for the purpose of preparing the youth of this country for the principal industrial pursuits of life in which arithmetic cuts but a very small figure. The farmer has to do with nature more than with number, but, judging from the overshadowing prominence given to arithmetic in our present school programme, you would suppose that the ability to solve intricate problems in this science, was the *be-all* and *end-all* of a child's career in the Public School. Surely there is a misfit here? Can there be any wisdom in educating a young man away from his life-work? A general education is desirable. Why not make our course of instruction a little more *general* and less *specific* in

the line of arithmetic? Neither the cultural nor the practical value of the subject will warrant any such prominence as it has mysteriously obtained in our course of study, a prominence without a parallel, I believe, in any other part of the world.

The apologists for this undue attention to arithmetic say that it is necessary in order to make pupils thorough in the subject. But I am prepared to prove that this is exactly what it does *not* do. The over-anxiety to *begin* the subject defeats the very object in view, and justifies the frequent complaint that a large proportion of our pupils are not accurate in the simple rules. My personal experience in a large graded school, together with the opinions of many other teachers of experience, and of business men whose work brought them in contact with boys immediately after leaving school, has convinced me that this complaint is only too well founded. One principal writes: "I have taken time to review the results of my inspection work of the various grades of our school. In the work of the Arithmetic classes, from the third class to the Public School Leaving, I find one uniform weakness throughout—the inability to perform the mechanical operations with certainty and swiftness. Let me put my findings in categorical order. (a) Pupils could perform successfully small operations in the mechanical work with a fair degree of certainty, but the time required was much too great for the work to be performed; (b) when pupils were given long work processes, not only was the time consumed much too great, but in a large percentage of cases the results were wrong. For instance, the following question was given:  $75867537654 \times 6789$ . The time limit, in my mind, was three minutes; at the end of that time only six out of a class of thirty-five had the work finished. The time was extended to four minutes and finally to five minutes, at the end of which time twelve pupils were still at work. Of the twenty-three who had been fortunate enough to complete the work within the five minutes, but eight were able to give the correct result. (c) Where the amount of mechanical work required was small, the problems were solved and correct answers returned in the majority of cases, though the time demanded was greater than I had expected. (d) But in problems involving precisely the same principles as those in (c), but wherein the factors would not vanish by cancellation, and therefore involved a considerable degree of the purely work process, the result was sadly disappointing.

Many other principals are in the same position as this one, and I

am sure that the man who devises some plan whereby the weakness I have pointed out may be removed, would confer a boon upon the teaching profession.

I confess that it is much easier to diagnose an evil than to prescribe a remedy, but I believe that the trouble arises from the fact that as soon as the pupils have passed a certain stage in their Public School career, the mechanical work, or the purely work process, is in a great measure dropped, and a perfect deluge of "thought problems" is poured upon them. The problems, quite correctly, are intended to test the pupil's power to think and not to perform the "work process." The latter falls into disuse, and where the pupil was, perhaps, once strong he now becomes weak, just as if a powerful man were compelled to refrain from the use of his limbs for a period of some years, and were then permitted to rise, he would probably fall the first time he put his feet on the floor. The only conclusion we can therefore arrive at is, that the mechanical work process should be continued, at intervals at least, throughout the Public School course.

But I fear we make a graver mistake than discontinuing the purely "work process" at too early a stage in a child's school career, and that is the introduction of the thought problems before the child's mind is sufficiently developed to follow a connected process of reasoning.

Mental scientists tell us that the faculty of number gives talent for rapidity and accuracy in performing problems in mechanical work in arithmetic. Combined with other intellectual faculties it gives mathematical talent. When it is deficient, numbers are combined with difficulty. It is active early in life, therefore, while yet very young, children can comprehend number and should be drilled in their combination. Then when the intellectual faculties are sufficiently active and developed for the solution of problems, they will have no difficulty in rapid and accurate combinations. They will then be able to add, subtract, multiply and divide rapidly and accurately, and will be spared the trouble arising from slowness or mistakes in these processes. Certain faculties act with their full strength at a much later period than others, and may be injuriously affected by being prematurely forced into operation. Thus one faculty may be characteristic of a particular period of childhood, as number for instance, and may be very usefully developed by frequent exercise, while another may still be very weak and would be harmed by any strain brought to bear upon it to

hasten its development. The teacher, therefore, needs to bear in mind certain broad rules which go some distance towards settling for him the sequence and severity of studies at certain periods, as well as the suitability of certain devices he makes use of in his methods. Imagination usually precedes reason, which is weak until the mind is somewhat developed. Reflection is the last of our intellectual faculties that unfolds itself, and in far the greater number of individuals it never unfolds itself in any considerable degree. Rightly managed, the reasoning processes will be to the child of the highest value and service through life; but defectively handled, they may prove a constant source of both error and trouble.

I have already shown how Principal Scott, of the Toronto Normal School, pointed out the same danger of overstraining the reasoning faculties at an immature age. The result of such premature forcing of the capacity of children and of the mechanical drill necessary to produce any apparent results is that, after a time, the child ceases to grow along this line, and soon indifference takes the place of former eagerness and interest. This, Dr. Harris, United States Commissioner of Education, aptly calls "arrested development," and he says that it is believed that arrested development of the higher mental and moral faculties is caused in many cases by the school.

Problems requiring intricate processes of reasoning should therefore be deferred until a much later stage in the child's career than is the case at present.

The poor results obtained from our present method of teaching the subject make us guilty of either misdirecting our efforts or of simply filling in time. While there is a possibility of both being true, I think I have made it clear to most of you that we fail more seriously in the former, viz., in the misdirection of our efforts, than in the latter. I could give you several examples of my personal experience in proof of this, but one will suffice. Several years ago a young man, who had left school when in the second book, came to me for private instruction. He wished to take a High School course later on, so I advised him to take up the Entrance work. After six months of private instruction, three nights a week, he tried the Entrance examination, swept the paper in arithmetic, and passed with a total of 70 per cent. of the marks. Now, that young man's mind was fully developed, and he accomplished in six months, besides his regular day's work at his trade, what it takes children

four or five years to do, and even then, in most cases, the result is very unsatisfactory.

I do not believe that in the majority of schools *too much* time is given to the subject of arithmetic, but I firmly believe that the course as at present laid out is irrational, and that most of us err in making our lessons too long. Mr. Scott, of the Toronto Normal School, has emphasized this fact very strongly. He says: "The habit of teaching with too long-continued drill the semi-mechanical branches of study, often leaves the pupil fixed in the lower stages of growth and unable to exercise the higher functions of thought." Under the talismanic name of thoroughness much wrong is done in graded schools. In ungraded schools there is no time, and, I shall point out later on, no necessity for such unpedagogical work.

Could we secure a panoramic view of the time tables of the schools of Ontario, I think we would find that most of them begin with "9.10 a.m., arithmetic." While this may not be so objectionable in the higher classes, yet do you not all believe that in the junior classes much better results would be obtained by having shorter lessons, say of fifteen or twenty minutes, several times a day? Even in the higher classes two half-hour lessons at different times of the day would, I believe, give better results than a single one-hour lesson.

We are told by psychologists that when we detect signs of monotony or weariness on the part of our pupils, it is *time for a change*. Constant activity in one direction produces mental fatigue. We know how tiresome a long sermon becomes to us, especially on a hot, sultry Sunday in the summer time, yet we impose a much more tiresome sermon on our pupils the very next morning, and probably feel annoyed at their inattention or lack of interest. Shorter and more frequent lessons all round will accomplish much better results.

I have spoken so far of graded schools principally. The failings I have pointed out are not so prevalent in ungraded schools, because they possess advantages which you will kindly allow me to point out as briefly as possible. In an ungraded school every class may hear the lessons taught to every other class. Some may say this is a disadvantage since it tends to distract the attention of those doing seat work. I am quite certain, however, that the advantages far outweigh the disadvantages. The seniors are benefited from the lessons of the juniors, and many points that were



not clear to them two or three years ago are now fully understood. On the other hand, the juniors are stimulated to greater effort and look forward with pleasure to the time when they will be able to do the work done by the seniors. Discipline is more easily maintained in a room where there are both old and young pupils than in one where there are fifty or sixty children, all of whom are at an uneasy, fidgety age. Though ungraded schools change teachers too frequently, as a rule, yet pupils are generally longer under one teacher than in a graded school, and they have therefore a better chance of receiving lasting impressions from the personality of a strong teacher. I think the experience of most of you will bear me out when I say that the ideal school of the future will be an ungraded school, presided over by a teacher of strong personality, broad sympathy and wide scholastic attainments.

We read occasionally in the public press and in educational journals, many references to the prevalency of machine-like work and the want of individual teaching in graded schools, particularly in large cities and towns. In some cases those referring to the subject have been quicker to point out the evil than to locate the cause. What is more natural than machine-like children when the teacher is forced to become a sort of machine and direct the lessons of from forty to sixty children, or even more?

According to the latest statistics for rural schools, the average per teacher for the whole Province is less than thirty. When we remember that this average is divided into at least four classes, we can readily understand that the country teacher has greater opportunity for individual instruction than his more unfortunate brother in the town or city. The natural result of this is a class of pupils whose individuality has not been crushed, and who, owing to the fact that they are continually previewing and reviewing their work, are more rapid and more accurate in their mechanical work in arithmetic than the pupils of graded schools.

You will pardon this seeming digression from the subject, as it was necessary to point out the marked advantages of ungraded schools in this respect. Hundreds, or even thousands, may catch the breath of inspiration from the lecture of some learned man, but that fifty or sixty children, whose voluntary powers of attention are necessarily limited, can be thoroughly taught in one class, by one teacher, is a human impossibility. Let us hope that the day may come when the large graded schools, especially the primary

and intermediate grades, will be supplied with nearly double the present number of teachers.

Let us now see, briefly, who is to blame for this unsatisfactory result in the teaching of arithmetic in the schools. Twenty-five years ago teachers prided themselves upon their knowledge of English grammar and their skill in mathematics, and the measure of their success as teachers was the ability of their older pupils to parse correctly difficult selections; to correct, with reasons, almost any example in false syntax, and to solve intricate problems in arithmetic. Whatever may be said of the scholarship of pupils and teachers in other respects, in *these* branches they were well grounded; within the limits of a narrow course they were well trained.

We know how it is with our pupils of to-day. Their style of work, as far as neatness and method are concerned, has improved. They have some acquaintance with a larger number of branches, but most of the children have not a real, definite knowledge of any of them. They have a smattering of history and geography, of agriculture and temperance, of drawing and the literature of certain lessons, but they are pigmies in arithmetic. I know that I am making a bold statement, but such is my firm belief, that the regulations of the Education Department are greatly to blame for this unsatisfactory result. I have already pointed out that the course, as at present laid out, is irrational. The standard required to pass the Entrance examination is equally so. Will any one claim that a  $33\frac{1}{3}$  per cent. standard is a true test of a child's knowledge in any subject? Is this system not as destructive of all thoroughness in the important mental training subjects as can well be conceived of, because it admits of compensation for a low standing in arithmetic by surplus marks in other subjects?

Let me give you a proof of this. Summing up the results of the last Entrance examination at eight centres, we find that out of 897 candidates 454 made less than half in arithmetic. These were picked pupils, not from rural schools alone, but from towns and villages as well; and these figures are, probably, fairly representative of the rest of the Province.

On the principle of "like teacher, like pupils," would it be unfair to conclude that the teachers of these pupils are weak along the same lines?

How many of the successful candidates at the departmental examinations make less than half in arithmetic is, of course, known only to Providence and the Education Department; but, judging

from the successful ones and by hints dropped by the examiners "in moments of weakness," it is safe to conclude that the showing is not very unlike that of the Entrance.

Until the Department ceases to make the teacher's course subservient to the interests of the University, and fixes a higher standard for passing, in some of the subjects at least, and until the Public School course is placed on a more rational basis and a higher pass standard is fixed for the Entrance examination, we need not look for much improvement in the subject of arithmetic.

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*HOW COULD THE BIBLE BE USED AS A TEXT-BOOK IN  
OUR PUBLIC SCHOOLS?*

C. E. KELLY, STONY CREEK.

This subject affects our national life, therefore this paper is not offered as consummate thought upon the practicability of making the Bible a text-book in our Public Schools; but it is offered as merely contributory to the discussion of the subject upon which so much has been written in modern days, and as expressing convictions that the writer has formed after endeavoring to put aside all prejudice and giving the subject, and much of the literature pertaining thereto, some consideration. Those who are acquainted with the history of the connection of Church and State will readily admit that the subject of this paper cannot be too carefully considered before arriving at a decision that would guide action in the matter. If the State had never dictated religion to its subjects, how different would be religious history! How many dark and bloody pages would never have been written. There had been no religious persecutions, no inquisitions, no massacre of St. Bartholomew, no penal statutes, and even in this country, no fighting over the Clergy Reserves, and no Separate Schools. The past teaches that in this discussion there must be no fanaticism, no bigotry and no intolerance; for if the sleeping demon of religious bigotry and intolerance be once awakened it will be disastrous to Christianity and drive the Christian churches farther apart. A deliberative body like the Public School Department of the Ontario Educational Association should come to no hasty decision.

The Bible is the book of books; it is the Word of God; its precepts are grand moral injunctions; its grand characters are models for our emulation; Christ is our sublime ideal, whom to follow is to inherit life eternal. But all this is admitted by the great majority of those who oppose biblical teaching in our schools; therefore, it is no argument in this discussion, and offering it as such might even be mischievous in leading people, through their enthusiasm and reverence for the Bible, to come to a decision not upheld by their sober judgment and detrimental to the cause of Christianity.

It is evident that the present generation is comparatively ignorant concerning the Bible, and unless something is done the

rising generation will be still more ignorant of the Bible's teachings. Children should be taught the Bible; it would ennoble their lives; it would aid them in the study of literature, history, painting, music, law and human institutions; it would prepare them for the here and the hereafter. But this, too, is all admitted by most of those who oppose the teaching of religion in our schools, and in this discussion is not argument.

It is generally admitted that the Bible should be taught to the children of this country; but should the State teach the Bible in all its parts, including religion? The State was organized by man to develop law and order in place of individual lawlessness. Therefore, the State has the right to develop the intellectual and moral powers of its subjects, and to regulate man's dealings with man. But religion is between man and God, and no human institution should interfere. What right has the government to force its way within the precincts of the individual conscience? It would seem contrary to the spirit of our constitution which grants every man the freedom of his conscience in religion, and the State should protect that freedom instead of taking it away.

The denominations are neglecting their Shibboleths and are coming closer together; but the denominations originated when the State dictated religion, and it is the very freedom of conscience and the very tolerance of to-day that is bringing them together. Why interfere with this freedom and tolerance? If the State were again to teach religion would it not cause religious controversy and drive the denominations again far apart?

Not till the denominations are one would it be at all possible to teach religion in the schools. It would necessitate the denominations to agree upon some definite form of doctrine to be taught to the children. Could they do this? If they could, why not agree upon the religion or doctrine to be taught to the old? What a great boon it would be! Many villages supporting three churches would only need to support one, and it would be more effective than the three. What a great aid it would be to missionary work! The denominations could no more agree upon the doctrine to be taught to the children than they can agree upon the theology taught in their different schools. We have creeds enough, anyway.

In teaching religion the State would need to use public money, which is obtained from taxation on all classes of men, and which all are obliged to pay. Is it the spirit of Christianity to oblige people to contribute towards its support? Would this not be an

insinuation that Christianity is weak? Christianity is strong. Its principles are eternal. It needs no compulsory support, and Christians are not prepared to accept it.

Many of our teachers are young and inexperienced. Are such qualified to teach religion? If so, why demand that your minister study theology for so many years?

In introducing religious instruction into the schools, would the government not be undertaking the work of the Church? But you say this is a Christian State and should surely teach religion. This is a Christian State only in that the majority of the people are Christians, and demand that the Sovereign and his advisers be at least nominally Christians; but the State is of human origin, organized before our race knew Christianity, and for the purpose of regulating worldly affairs. Why should such an intensely human institution dictate religion? The Church is a divine institution, organized by Christ and with Christ as its head. Christ left His Church the work of teaching His Gospel and never once sought to use the State as an aid in spreading His teaching. He said "His kingdom was not of this world." He distinguished between Church and State when He told His followers to "obey the powers that be," and to "render unto Cæsar the things which are Cæsar's; and unto God the things that are God's," thus teaching that there are things over which the State has control and other things over which the State has no control. Christ went "round about the villages teaching." He commanded His followers to "teach all nations, to observe all things whatsoever He had commanded them." It is evident that it is the work of the Church to teach the Christian religion. Is the Church doing its work? Can it be that the great pulpit orators of to-day have attracted the attention of the people to the pulpit rather than directing it to God's Word. By all means let Christianity be taught to young and old, but let it be taught in Christ's way.

But while the State is not responsible for the teaching of religion, it has assumed, with the teaching of many other subjects, and justly so the teaching of history, literature and ethics. As a text-book on these three subjects there is no better book than the Bible. But it is not necessary here to dilate upon the great benefits that would follow the teaching of these three subjects from the Bible, for these benefits are already admitted by the great majority of our people. Then why not teach history, literature and ethics from the Bible as a text-book?

But, should the whole Bible be used as a text-book in these subjects? The whole Bible is not intended to be studied in public, for parts of it are directed to people in their private life; the whole Bible is not intended for children, for parts of it are directed to parents and adults. To teach the whole Bible the teacher would need a preparation not to be obtained in any college in this country. To teach the whole Bible every teacher would need to be a statesman and a diplomat, so as not to get into trouble with the different denominations in his section; for even now, in some sections, the only fault some people find in the teacher is that he belongs to some denomination that they do not like; and even now some inefficient teachers are kept in their positions because they belong to a certain denomination. Many teachers have secured positions and many have lost them through belonging to some particular Church. Would not the teaching of the whole Bible in the schools increase this evil? The people of each denomination would want the teacher that, through his own prejudice, would favor their views. It is evident, then, that the only safe way to make the Bible a text-book is for a committee of eminent educationists, not from any denominational college, to make with great care selections for history, literature and ethics. In history, the chief events of the history of Israel might be chosen. In literature and ethics, the story of the "Good Samaritan" and others, from both the Old and New Testaments, would be acceptable to all. These are only brief suggestions, and are not intended in any other light. Matthew Arnold, in his report upon the German schools, favors this plan; and the Bible is already used as a text-book on ethics in one of the greatest of American institutions of learning where, as your genial secretary told you last year, a Christian minister is not allowed to enter.

What objection is there to making selections? Most assuredly, it is wrong to make selections for the purpose of teaching any particular doctrine, for in that case God's great plan for the salvation of men could not be taught as fully as it is given; but there can be no objection to making selections for history, literature and ethics. Every minister selects the portions of the Bible most suitable to his congregation. Every judicious parent selects those portions of the Bible most suitable to his children. Burns represents the pious Scotch Cotter, in his family worship, as selecting portions of the Bible "with judicious care."

While the teacher may not systematically teach religion, he may

indirectly, in the teaching of history and literature, inculcate the great and eternal truths of Christianity, and in his life as a model for his pupils, in his dealings with his pupils, and in the relations of the pupils with each other, he may secure the practice of the sublime principles of Christianity. Practice is greater than preaching, and if Christian principles are practised in the schools there will grow up in this country a great and noble populace, which alone can make a nation great.

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## KINDERGARTEN DEPARTMENT.

*THE EDUCATION OF THE DEAF.*

GEO. F. STEWART, BELLEVILLE.

Perhaps there is no better test of the degree of civilization attained by any nation than the manner in which it treats those classes which are deficient in any of the organs, senses and faculties possessed by normal people; and, judged by this test, Ontario ranks second to no other country in the world, as witness our schools for the deaf and the blind, and our various eleemosynary institutions. There was a time when the deaf were regarded as unfit to enter into the society, occupations and pleasures of common life, when they were treated as pariahs and regarded as cursed by the gods. St. Augustine declared that the deaf were incapable of exercising saving faith, because they could neither hear nor read the Word. Views of the deaf almost equally erroneous and unjust have been held in every country and in every age, and until quite recent times the deaf were deemed quite incapable of receiving instruction. It is only about a hundred and fifty years since the first faint efforts were made in Europe to instruct the deaf; it is less than a century since educational advantages were generally accepted and established; it is but fifty-four years since the first school for the deaf—a private one—was opened in this Province, and not till 1870 that the Government assumed charge of the work; and in view of these facts it may be fairly said that greater progress has been made in the last fifty years in the education of the deaf than in any other line of educational effort.

Those upon whom devolve the duty and responsibility of providing for the education of the deaf, sometimes neglect to furnish adequate facilities therefor, largely because they do not fully realize the vast difference between the status of an uneducated deaf person when compared with that of an illiterate hearing person. The latter, if of average natural intelligence, readily acquires a very considerable vocabulary, and without any effort on his own part or any special instruction, learns the names and characteristics of every kind of object that comes within his observation, is able to express his

thoughts freely and intelligently, and by converse with others he obtains a fairly accurate knowledge of all matters that pertain to his own immediate interests; and, though he may be unable to read a word, he can, through others, ascertain in a general way what is passing throughout the world. He can converse intelligently, can take part in the various activities of life, can discharge in a creditable manner all the responsibilities devolving upon him, may even rise to positions of trust and honor, and, despite his limitations, may thoroughly enjoy life in all its phases. His moral nature may be fully developed, his religious convictions may be deep, sincere and accurate, and he is quite capable of performing his duty to God and to man.

How vastly different from this is the lot of an uneducated deaf man. With rare exceptions he lives in a state of impenetrable ignorance and awful isolation. His want of knowledge is not merely comparative, it is practically absolute. He does not know the names of the commonest objects of every-day use, and his knowledge of what occurs around him is limited to what he actually sees, since he cannot receive ideas or information from others, nor convey ideas or wishes to them, except his commonest wants, which he may express in pantomime. Unable to hold converse with others because of his entire lack of language, he lives a life of loneliness quite inconceivable to hearing people. Of the general events transpiring throughout the world he must remain in absolute ignorance, since he cannot read and possesses no language by which he can hold communication with his friends. Europe might be deluged with blood, or half the inhabitants of the earth destroyed by earthquake, or pestilence, or famine, and he could know nothing of it, for there is no way in which ideas foreign to his own observation or experience can be conveyed to him. And while he may not be immoral in practice, he is to a large extent unmoral, since he can have only a very limited apprehension of ethical concepts; he can know nothing of the existence of a God or of a hereafter, nor even that he has a soul, and can have no conception of spiritual verities and religious thought and sentiment, except such faint intuitive perceptions of such matters as may be inherent in mankind. To him life is an unsolvable enigma, and death a dread and unfathomable mystery. And thus he endures his blank, joyless existence, never hearing the sweet sounds of human speech, never knowing the delight of communion of friend with friend, never feeling within him the pulsation of an awakening and developing intellect,

never realizing the comfort of consonant human sympathy nor the consolations afforded by religion. An existence such as this is sad to contemplate, and tragic to endure, and furnishes a convincing plea for the amplest educational facilities for all the deaf.

The old ideas relative to the deaf still survive to some extent, and there are many people who yet regard them as mentally defective. Nothing could be farther than this from the truth, although the misconception is aided by the seeming stupidity of the uneducated deaf owing to their inability to communicate with hearing people, and the shyness arising from their realization of their defect. In truth, however, the deaf are in all respects similar to hearing people, except for their deafness, and this deprivation is less than it seems, since it is to a considerable extent compensated for by an abnormal development of the powers of observation. Of course there are among the deaf some stupid ones, just as there, and in quite as large proportion, among the hearing; but comparing them individually and collectively, there cannot be found in any public school in Ontario a brighter lot of boys and girls than can be seen any day at the institution. The spectacle of these children assembled in chapel, or in the class-room or on the playground, is an interesting and inspiring one. The loss of one sense has induced the superlative development of the other senses, and their acuteness of observation, vivacity of manner, mobility of expression and rapidity of movement, is a revelation to the visitor. As a rule, the deaf are eager to learn, and they acquire knowledge with wonderful facility, in view of the fact that they are deprived of a chief medium for its acquisition. As a rule they are very susceptible to religious influences, and in point of morals they are perhaps superior to hearing people; not that they possess less inherent evil, but because they are less subject to temptation, and their deafness renders it more difficult for them to learn and practice evil habits.

One of the many erroneous ideas prevalent relative to the deaf is that those classed as deaf mutes are mute in the sense in which they are deaf. They are deaf because they have lost the power of hearing. Many people think that they are mute because their organs of speech are defective. This is by no means the case. The organs of speech in the deaf—even of the congenital deaf—are as perfect as in the hearing. They cannot talk because they do not know how. The process of learning to talk is imitative. A child learns to talk by hearing others talk and imitating them. If a hearing child were brought up under conditions which precluded it

from ever hearing the sound of human speech, it would be as mute as a deaf child, except to the extent to which it might imitate the sounds of animals and birds, and for exactly the same reason. On the other hand, if all the deaf children in Ontario had their hearing restored to them, 99 per cent.—perhaps all—of them would in a short time be able to talk quite as well as other people. The older deaf people, however, would have more difficulty in learning to talk, perhaps those well up in years could not learn at all, for the reason that their organs of speech would probably have become atrophied from life-long disuse. One of the most interesting processes in the education of the deaf is that of teaching such of them to talk as are capable of learning. This is a difficult and tedious task, however, and not always a satisfactory one, for, while fifteen or twenty per cent. of them can be so taught, their speech, except in rare cases, is not easily understood by those unaccustomed to it, and is as a rule by no means pleasant to hear, since, being deaf, they have no guide to modulate the tone of voice. This same defect is seen in people who lose their hearing even late in life. In almost all such cases the voice, as years pass by, becomes more and more harsh and indistinct and expressionless.

The methods of teaching the deaf must necessarily differ very radically from those employed for the hearing. The most noticeable feature of our work is the prominence given to the teaching of language. The reason for this is obvious. The ear is for the child the chief medium for the acquisition of language. Most people are said to learn more in the first seven years of their lives than in all subsequent years. Whether or not this be true relative to the acquisition of knowledge, it undoubtedly is true so far as acquaintance and familiarity with the use of language is concerned. The hearing child begins to recognize words when only a few months old. Before it is two it can speak quite a number of words, and by the time it is seven it is familiar with the names and characteristics of nearly every object with which it has come into contact, and can express itself freely and with reasonable accuracy. And, since the vocabulary of most people consists of only a few thousand words, it will readily be admitted that the average hearing person acquires more language in the first seven, perhaps in the first five, years than in all their subsequent lives. Thus, when a hearing child enters school it is already in the possession of an extensive vocabulary as well as of all the senses through which both language and knowledge are obtained. Now,

the most difficult task that confronts the teacher of the deaf is to give his pupils that facility in the use of language that every hearing child has acquired without conscious effort, and chiefly before its school course has begun. When the deaf child enters school he does not know a solitary word of the language. He must begin where the hearing babe began—but without the babe's aural advantages—and learn his first word, and it will take him four or five years to gain sufficient language to be able to express ordinary ideas with tolerable accuracy. In other words, the hearing child at five or six years of age has much greater facility in the use of language than the deaf child has after several years of laborious effort in the class room. For ours is a singularly illogical language, full of colloquial and inconsistent forms of expression, and endless repetition is the necessary condition of facility in expression for both the hearing and the deaf. The hearing child is a ceaseless babbler all day long, while the deaf uses only as much language as he can write in a few hours in the class room, so that it may safely be averred that the average hearing child hears and uses more language in a day than the deaf child writes or sees written in a month. Yet, though the deaf are so sadly handicapped in the race, we claim that after seven or eight years of school life our pupils are nearly, if not quite, equal in attainments with hearing children who have attended the Public Schools for the same length of time.

It would be very difficult to give in words an explicit and intelligible exposition of our method of teaching the deaf—that could be adequately given only by practical demonstration. There is, in fact, nothing occult or difficult about it as regards the method, though it requires almost infinite patience and tact for its successful application. The child is separated from its parents, perhaps for the first time, and taken far away to the institution without the remotest conception on his part as to where he is going or what is to be done with him. On the first day of the term he enters the school-room as into a new world, and begins what is to him a new life—in fact, he is being born into intellectual and moral existence. His mind is now an absolute blank. He does not know the name of a single object, in fact, does not know that objects have names, or even that he has one himself. It becomes the teacher's duty and privilege to plant in this virgin soil the seed from which will be developed the intellect and character that are to be. The beginnings are simple enough. Holding up, or

pointing to the picture of some common object, the teacher writes the name of it on the board. "Cat" is a good word to begin with, as the letters are easily formed and every child is familiar with that animal. The teacher points to the object, then to the name, doing this repeatedly so as to impress on the pupils the relation between the two. If there are several pictures of cats to point to, the name idea will be more readily perceived. It is often advisable to write the names of two or three other objects, as "dog," "cow," "hen," on the board, in order to make it clear to the pupils that each object has its own distinctive name. Some will catch the idea at once, others will not, and it is helpful to have the brighter pupils point to the object when the teacher indicates the name, and vice versa, and this may have to be repeated many times before the duller pupils fully grasp the idea. The pupils are then required to copy the word on their slates, and this, with some pupils, is a very trying task. Some go at it with inborn clumsiness, and it will be many days before they can write legibly the first simple word, while others will gain fair facility the first day. By a repetition of this process other words are added from time to time, and the first few words of a vocabulary formed. When the pupils have learned the names of a score or so of objects, and are able to write legibly, then commences the work of sentence-building. This is taught by what is called "action work." The teacher, for instance, directs a boy to open the door, and then writes on the board, "A boy opened the door." The pupils will have already learned the words "boy" and "door," and now, by a number of illustrations, the meaning of "opened" is made clear to them. Various actions, illustrative of the same verb, are given, as opening a window, a desk, a book, a watch, the mouth, etc., till they are thoroughly familiar with this action. Then another verb is taken, as "tore" or "broke" or "touched," and actions involving its use performed and described. Later on the distinction between "a," "an," and "the" must be taught—a most difficult task, indeed; then the prepositions which can be easily illustrated by actions, such as "to," "from," "on," etc. Then the use of pronouns and adjectives must be learned, also numbers and their relations. An essential feature of this system, it will be seen, is object teaching, and every device must be used to illustrate the meaning of words and sentences, for with the deaf the eye must perform the functions of both the eye and the ear of the hearing child. Thus, word by word, the rudiments of our language are acquired, that

which the hearing child obtains by unconscious absorption, requiring tedious and laborious effort from the deaf. When we remember how slowly children compose, and how little such babes in the intellectual world can write during the four or five hours which they spend in the class-room each day—for they get practically no language outside—it will be easy to realize how slow their progress must be at first. Yet the brighter pupils in the first term will learn the names of several hundred objects, will be able to write a couple of hundred sentences, involving the use of forty or fifty verbs, and the more common adjectives, prepositions and pronouns, and will know notation and numeration up to perhaps five hundred; the accomplishment of this result, however, requiring hundreds of repetitions and the exercise of almost infinite pains and patience on the part of both pupil and teacher. In the other grades the same system, elaborated and extended, is used; and it must be ever remembered that considerably more than half the time of the teacher of the deaf is spent in drilling his pupils in the common forms of language—work that the teacher of the hearing child never has to do.

There are several other features of our work to which I would like to allude at length, but I must forbear. The teaching of articulation, as I have already indicated, never fails to excite the interest and wonder of the visitor, for thus every day we perform the miracle of literally making the dumb to speak, and, although we cannot make the deaf to hear, we can and do to a large extent enable them to overcome the disabilities of deafness. Several useful trades are taught at the Institution to such as wish to learn them, and we also have a well-equipped manual training shop. All of the girls must learn to sew and to become conversant with all of the details of housework; and the boys not in the shops must make themselves generally useful around the Institution, so that, when they leave school, they are as well prepared as possible to make their way in the world. Instruction in morals and religion is regularly given and the pupils are all taught and required to be industrious, obedient, courteous and respectful. That the results are highly satisfactory is demonstrated by the gratifying fact that, so far as we know, there is not a graduate of this institution who is not earning, if need be, a competent livelihood, not one who can be classed as a pauper, not one in any penal institution. Hundreds have married and established happy homes, and there can be found in this Province no other class of persons who surpass the deaf in

all the graces and amenities of life, or who take higher rank as industrious, law-abiding, loyal and useful citizens.

I would like to take this opportunity of urging upon our educational authorities the great desirability of having the manual alphabet taught in the Public Schools of the Province, and, to this end, having it incorporated into at least one of the text-books in each grade. A very few minutes' instruction and practice each day would make every child proficient in its use sufficient for all practical purposes. Even if it be deemed inexpedient to make it compulsory to teach dactylology, yet if only the opportunity were given no doubt a large majority of the pupils would learn and practice it of their own accord, without interfering in the least with their other studies. The population of Ontario includes some thousands of deaf mutes scattered throughout the community, and nearly all hearing people come into frequent contact with them, and it would be of decided advantage to both the deaf and the hearing to possess this easy and ready means of intercommunication. The Province spends a large sum of money each year to educate the deaf, that they may become useful and self-supporting citizens. Such an expenditure is undoubtedly a wise one, and productive of great benefit to the community at large as well as specifically to the deaf. The results sought for are to a large extent nullified, however, by the lack of a common medium of communication, the deaf being thus placed at a great disadvantage in their efforts to earn a livelihood. It will be readily perceived therefore, that if all hearing people were familiar with the manual alphabet the beneficent effects of deaf-mute education would, for practical purposes, be greatly increased, and the community thus get a much greater return for its outlay in this direction with no further expenditure whatever except the insignificant cost of adding one more page to a few of the public school text-books. And beyond the public benefit of dactylology for the purpose indicated, its intrinsic value would make it well worth while to have it taught in public schools, for the occasions are not infrequent in every man's life when the knowledge of this means of silent communication with others, near or far off, would be of great practical utility



*KINDERGARTEN WORK AMONG THE BLIND.*

MISS WINNIFRED MESSMORE, BRANTFORD.

Perhaps nowhere can the real beneficence of Frœbel's work be seen to better advantage than in a kindergarten for the blind. Founded to provide means for the best development and most complete and thorough training of sightless children at the most impressionable period of their lives, it is fulfilling its mission with remarkable success; and could the great man witness the unfolding and expanding of these little minds so shrouded in darkness, he would indeed see the fruit of his labors and be satisfied. It leads them into paths of learning through orderly doing and pleasant play, lays the foundation for industry and happiness, opening to them the way of growth as a result of their own activity.

In speaking of kindergarten work as carried on at the Brantford Institution, and I suppose the same holds good at all similar institutions, we find a great difference between it and the Public School kindergarten, inasmuch as we do not have the children for only two or three hours in the morning, then dismissing them to their several homes, where they are under the care of their mothers; but they are with us continually, knowing no other home for nine months of the year. It is therefore necessary to find suitable occupation for them. Blind children, not having the many resources of sighted ones for amusement and entertainment, as we realize fully, and knowing the truth of the adage that Satan finds mischief for idle hands, we have in connection with the kindergarten, primary work, teaching the simplest rules in arithmetic by means of kindergarten materials, and, since to the blind child, even more than to any other, reading is of paramount importance, as it feeds his imagination and takes him out of himself, reading is also taught, suiting of course the manner of instruction to the age and development of the child. And just here let me say that although a pupil may come to us at eight years of age, we rarely find his development much beyond that of an ordinary child of six. Generally speaking, at home the blind child is left almost entirely to his own devices; nothing is expected of him, the other children attending school and having their own games and occupations into which he cannot enter, and, in most cases, the mother being too busy to devote much time to him, he comes to us with senses all

asleep, a timid dependent creature, knowing nothing of his own powers, whose thoughts are indicated by the oft-repeated words "I can't do that," or "That's too hard for *me*," afraid to turn to the right hand or to the left lest some unknown evil come upon him. He may be likened to a plant which has sprouted in the dark, weak and colorless; and if allowed to remain there will droop lower and lower until all possibility of beauty is lost; or perhaps he may be more fittingly compared to the chrysalis, inert, with all his latent powers awaiting but the warm breezes and genial sunshine to call them into being. Yet after having been with us but a short time the change is perfectly amazing. The "I can't do that" is changed into "That's easy for me," and one often hears "I couldn't do that when I first came, but now I can." And the fearlessness and freedom with which such children go from place to place or play their games, without thought of harm, is surprising. The latter is no doubt due, in a great measure, to the special training which they receive several times a week in the gymnasium, an extremely well-equipped department of the institution, where the little tots as well as the older pupils go through their varied exercises under the direction of the gymnastic instructor. And one needs but to hear the children say, "Oh, good! this is our day in the gym," to realize how much this method of directing their self-activity is appreciated.

The kindergarten in the O. I. B. was established about fourteen years ago, having an average of fifteen pupils; this year, owing to several having been transferred to higher grades, the attendance is slightly less. But with these pupils, where individual work is a necessity, especially with beginners, a larger class is a great disadvantage, and cannot be properly attended to. The necessity for kindergarten work in schools for the blind, is that it gives the child a series of simple, attractive and well-graded successes, and by means of these the helpless child can emerge from his overgrown babyhood, and do something. Then, since "nothing succeeds like success," his success inspires him to try again. I well remember a child coming for the first time when we were using clay; he was one of the most helpless of the helpless, and when I gave a piece of clay into his limp fingers I did not wonder at his saying "I can't make nothing," but I left him and turned to some of the other children; shortly after I heard a most delightful exclamation, "Oh, I've made a marble." To be sure, it was a very simple and crude beginning, but probably for the first time in his life the

child realized that he had actually made something, and was eager to try again.

Being deprived of sight, the instinct of imitation, that important factor in a child's education, is much restricted, and so things that the normal child of six has learned by observation and intuition, such as how to lace a shoe, fasten a button, keep his fingers out of his eyes, learn relations, up, down, right, left, find his way about alone, and above all the use of his hands, must be taught by continual repetition, which taxes the patience of both pupil and instructor. With regard to the adaptation of kindergarten materials and methods in the teaching of blind children, I can only say there is no hard and fast rule workable with advantage in education, but each teacher must work out her own methods in accordance with the nature of her material. The question to be answered is, "What is best for the child," and each child is an individual and distinct problem. Unless one is in sympathy with the child, the question cannot be answered, but most children readily respond to advances made toward them honestly. One of the greatest difficulties in the teaching of these children is to secure and hold the attention of the class as individuals, for, entering the institution as they do, seldom more than two or three at the same time, we find in a class of sixteen nine or ten different stages of advancement, and it is when we are able to direct these so that the child is working out his own thoughts steadily and persistently that we achieve our greatest success.

The question has often been asked, how we begin to teach these children, and through what the first appeal is made. It is a difficult thing to say, for we make use of whatever attracts each child individually as he comes to us, and we often have as many channels through which the interest is aroused as we have children. But most often the very fact of being given something to do, no matter how simple, is to them a novel experience, and at once awakens interest. Occasionally a child may take up his string and let the beads slip through his hands listlessly, but generally his curiosity is aroused when he is told that he can string the beads, and when he finds the hole and is able to slip the beads on the string he is happy in the extreme, and needs no further urging. The stringing of the half-inch beads on laces and the pegs and tiles are generally the first occupations given.

With these children I have used the first "gift" almost wholly in connection with the teaching of number, form, and the talks

about materials. At first I had used them as with sighted children, in their symbolic songs and games ; but I found that these children, never having seen the different objects which the ball may be made to represent or their various movements, concluded *more than that* "all things are of one pattern made": they said all things were made alike, and I heard one little girl remark, "How funny that the birds and squirrels and everything are just the same." Since then the ball has remained simply the ball, and wherever possible the real object is given them to handle and examine. This is still further carried out in the natural history class, a grade higher than the Kindergarten, in this way trying to secure as clear an idea of the object as is possible under the circumstances. I do not mean to say that we have no symbolism, for if the blind child could not get away from his actual surroundings and experiences, how bare and meagre would be his life ; but, not having his sight, he cannot learn as other children do, and for this reason the utmost care is necessary to give him correct foundations for his symbolism. It is only the games that they understand that they enjoy playing, those of which they have gained a knowledge through the sense of touch or hearing. They soon weary of games which have been taught to them, and which they themselves are not personally attracted to or interested in. They enjoy the trade games, as nearly all are more or less familiar with the working of blacksmith, carpenter, baker, cooper, etc., and these games are general favorites. We use the running and skipping games very little, as the gymnasium affords a better means for the overcoming of their timidity, and the ample grounds around the Institution give every chance for outdoor exercise. The games designed for the training of the senses are used in every way possible ; they are practically the same as those used in other Kindergartens, but our children attain a greater degree of proficiency than those who, having their sight, are not so dependent on the other senses. The piano is used especially in the training of the ear, by playing separate notes, chords, scales, or a few bars from some of the many songs they sing, and having the children tell what has been played. One little girl, nine years of age, never fails to give the correct answer, and several others are almost equally proficient. A great deal of emphasis is placed on music as a part of the school work, nearly all the little children belonging to the junior vocal class, which is under the direction of the musical instructor of the Institution. Of course we have our own Kindergarten songs, and the finger plays are especial favorites,

although the nature songs are very much enjoyed. They seem to find in the harmony of sounds some compensation for color harmony, which is, of course, lacking in the education of the blind; the need of this element appears to be felt by them, for they question so closely concerning the color of the flowers, sky, rainbow, and delight in stories descriptive of any of these, feeding their imagination with these stories as well as through the songs.

When beginning this work, I thought that the morning talks would necessarily be one-sided affairs, since these children, not being able to see what was going on about them, would have very little to relate; but I found that if their eyes were closed their ears were wonderfully alert, and it needed but a suggestion from us to set them listening to the birds, bees and other insects; and a few talks about flowers, trees, leaves, stones, etc., awakened interest to such an extent that I had soon material enough for a year's talks. Now they are listening for the birds, and the one who was first able to report having heard a robin was regarded as quite a hero by his fellows. A week or so ago one little chap came to me, holding most tenderly in his hand one little bud from a "pussy willow," his face beaming with delight to think he had found one of Spring's children. The constructive imagination of the blind child is to him a never-failing source of delight. He listens eagerly for sounds, tastes, smells, and is always eager to *see* (as he says) anything new. Everything is very real to him. The sunshine is just as much a person as his little playfellow, though never a ray of light may have pierced the gloom which surrounds him. Our Kindergarten room is a very bright one, and the children always go around to the different windows to find out if the sunshine is coming to see them, and there is quite a rivalry between some whose tables are so situated that the sun always comes to see them, and others not so favored. Not long ago, it being cloudy in the morning and bright when we came to class in the afternoon, one little boy started to sing "Good Morning to the Sunshine," when he was promptly stopped by a little girl, who said, "Say 'Good Afternoon'; the sunshine will think we do not know anything if we say 'Good Morning' now."

The materials used in a Kindergarten for the Blind are larger than those made use of in ordinary Kindergartens, and the efforts confined as far as possible to the work which has the most practical value. In the sewing, the perforations are larger than those used with pupils who have sight, and made so that the roughness may be felt on both sides of the card. For beginners, we use cards of

perforated tin, sewing with a coarse, blunt needle, and twine ; much time is expended in showing the right way to hold the card and needle, and in learning to thread the needle. This latter is a difficult task, but is accomplished by some in a comparatively short space of time, though I seldom try to get them to do this until a fair amount of proficiency has been secured in the sewing. I have found this occupation to be the most difficult for blind children ; a few do their work as well as any child with sight could, but the majority are less proficient in sewing than in either weaving or folding.

In weaving, we use first oilcloth mats with slats ; then, when these have been mastered, the manilla mats are used, either with their corresponding strips or still using the slats, and later the regular Kindergarten material. For folding, larger sized squares are used, and only the simplest forms, the methods modified as seen fit to suit the children. One little girl, in my class who is totally blind, folds as accurately as other children with the best of sight. The blocks used in some institutions are larger than those generally preferred, but I have found no difficulty in using those of the regular size. The tables, instead of being merely marked off into squares, have the lines cut into the wood, so the child can feel where to place his blocks or tablets. Often a pad, covered with some light material, is made with the squares outlined in stitching on it. This is fastened to the top of the table and outlines made by pinning the beads to this. The children are then able to examine their work without disturbing it ; the sticks, being pierced, are treated in the same way.

Clay modelling is very helpful and beneficial to these children, as, having to depend on the sense of touch alone for their ideas of form, they are enabled by means of the clay to form much more correct ideas concerning objects than the mere handling could give them. And through it this sense becomes so acute that discrepancies and resemblances are noticed even more readily than they would be by sight. The work of modelling in clay does almost more than anything else to prove that the blind pupil understands what has been taught to him. The question is often asked, How do you know that this child comprehends your explanation ? The best answer to this is the completed model, a pear, apple, bunch of grapes, cube or cylinder well moulded by the child after the object has been explained to him. It shows that he has grasped the correct idea of form and size through the sense of feeling. In this work, more than any other, children are able to see how they are

responsible for certain results, and it is astonishing how readily they apply the truths learned to their behavior. One day we were talking about uprightness, and I was endeavoring to explain the word, when one little fellow spoke up and said, "Oh, yes, I know when anyone is upright; he is like the cube I made yesterday, all the edges had to be straight up and down."

The work among these children is most interesting and full of possibilities, for though they have *not* eyes, yet they see, and are so happy that it is a pleasure to make their lives as joyous as possible. Some one has said, "You are owned by the thoughts you cultivate," so in all we do we try to make the thought underlying such that the feelings generated thereby may be of the purest and truest, so laying the foundation for right living, which, being the true creative self-expression of the individual, is the real object of education.

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## TRAINING DEPARTMENT.

*SHAKESPEARE AND THE TEACHER.*

A. A. JORDAN, PRESCOTT.

“ For a good poet’s made, as well as born,  
And such wert thou. Look how  
The father’s face lives in his issue,  
Even so the race of Shakespeare’s mind  
And manners brightly shines  
In his well-torned and true-filed lines ;  
In each of which he seems to  
Shake a lance,  
As brandished at the eyes of ignorance.”

—Ben Jonson.

It is undoubtedly true that the poet is made as well as born, and I think no one will doubt that this is equally true of the teacher.

While the main purpose of the poet may be to give pleasure rather than to instruct, yet it can be fairly claimed that one function of the poet is to *teach*. Since, as Ben Jonson puts it, he “ shakes a lance, as brandished at the eyes of ignorance.”

Then, since the poet and the teacher have much in common in the nature of their work, dispelling ignorance, stimulating the imagination, stirring to ambitions for higher things and all else that fall within their purview, the *sources* of the power of the one would be much the same as for the other.

The teacher, then, in studying a great poet through his works, will consciously or unconsciously discern the *sources* or fountains of the power of the poet, through that great law of the human mind, the law of imitation. As he gradually discovers *how* the poet serves his purposes, one of which is “ to shake a lance at the eyes of ignorance,” he, too, discerns how he may with greater effect attain to the same end. When one reads Shakespeare thoughtfully and ponders over his thoughts, his fancies, his comprehensive grasp, objective and subjective, he begins to realize these words of Christopher North : “ Shakespeare is of no age. He speaks a language which thrills in our blood in spite of the separation of two hundred



years. His thoughts, passions, strains of fancy are all of this day, as they were of his own; and his genius may be contemporary with the mind of every generation for a thousand years to come."

He possessed a universal mind, himself his only parallel, and so he gives utterance to universal truth, to universal thought, and hence the reason why he may always be contemporary with mankind.

The teacher in his humbler sphere, thought none the less worthy notwithstanding is dealing with the universal. *He* is presenting truths that will always be such, and in so far as these are vividly impressed and their influence bound like a chain upon those to whom they have been presented, they may affect and influence a hundred generations yet to be born.

Since, then, the teacher's calling may have such far-reaching results, he should have a mind possessed of knowledge and a heart attuned to the understanding and influencing of the varied temperaments of that great microcosm—the school—with its motives and complexes of motives, as in the great world outside.

What can the teacher better do than to make a careful study of the products of those great minds who have moved for good humanity at large? Some one has said that every teacher should have a thorough knowledge of the Bible, Shakespeare and Macauley. Opinions might differ as to the selection, but I have no doubt of the soundness of the underlying principle here implied.

It may be well just here to ask, what the sources or qualities of the influence of Shakespeare were by means of which he was enabled to raise not only his own generation, but succeeding ones as well, to a higher plane of civilization and culture? To enumerate all of these would be a long and difficult problem, but a fairly careful study will reveal the most prominent. Among these may be mentioned his keenness of observation; his wide general knowledge; his keenness of perception into men's motives; his fair mindedness; his knowledge of the sacred writings; his fine imagination, as shown in his splendid literary flights to which he gives utterance; his sympathy for mankind, and especially for the follies of youth; his power to describe character; his fine psychologic and philosophic sense; his wit and humor; his pure patriotism, which has nothing parochial about it, but is broad and is based on no sordid motives. A few of these may now be examined more closely.

I have said that keenness of observation was one of his characteristics. In the first scene in the first act of "The Tempest," his

familiarity with the work and language of sailors is shown. His terms are said to be correct and the directions accurate. In "Henry V." the Bishop of Eli says of Henry :

"The strawberry grows underneath the nettle ;  
And wholesome berries thrive and ripen best,  
Neighbour'd by fruit of baser quality."

Brutus says :

"It is the bright day brings forth the adder."

And, in "Much Ado About Nothing," Margaret, the gentlewoman attending on Hero, says of a certain, rather fine dress :

"Cloth of gold, and cuts, and laced with silver ; set with pearls, down sleeves, side sleeves, and skirts round, underborne with a bluish tinsel."

And, in that tragedy of which he is one of the leading characters, Antony says to Eros :

"Sometimes, we see a cloud that's dragonish :  
A vapour, sometime, like a bear, or lion,  
A tower'd citadel, a pendant rock,  
A forked mountain, or blue promontory."

These examples will suffice to show how alert his senses were, and to show how much he delighted to note what came within the range of his experience. He especially loved, as in the last example, to study and observe the face of nature. He believed in nature study, and so it has been said of him :

"It is she who was thy book, O Shakespeare ! it is she who was thy study day and night ; it is she from whom thou hast drawn these beauties which are at once the glory and delight of thy nation. Thou wert the eldest son, the darling child, of Nature ; and, like thy mother, enchanting, astonishing, sublime, graceful ; thy variety is inexhaustible, always original, always new ; thou art the only prodigy which Nature has produced."

This quality of observation observed by the teacher in his study of him will, in accordance with the principle already stated, tend to cause him to observe, and if so, how much the better his teaching !

Another source of his power was his knowledge of and applications of the principles of Holy Writ. A study of his works from this point of view will be interesting to the teacher, and not only so, but it will direct his attention to the important principles in the sacred Word which he ought to exemplify and enforce in his

every-day work in school in his relations to his pupils as their guide in conduct and work. In the teaching of such content subjects as history and literature, the value of scriptural knowledge is great, for many of the references and allusions can be explained only by a knowledge derived from this source.

In many instances we find the poet enforcing an argument or illustrating a thought by expressions which show clearly where the thought originated. In the trial scene in "The Merchant of Venice" the poet handles the case as a matter of law and justice with consummate skill, but he shows the world a noble conception when he teaches that grander than justice is justice mingled with mercy: "We do pray for mercy, and that same prayer doth teach us all to render the deeds of mercy." A sentiment found not only in the New Testament, but in the Old as well. When Bolingbroke and Norfolk have received the sentence of banishment, Bolingbroke urges Norfolk to make a full confession of his treason, to which Norfolk replies:

"No, Bolingbroke; if ever I were traitor,  
My name be blotted from the book of life  
And I from heaven banished."

And so in many varieties of circumstances we find that he has a wide grasp of this greatest of all books.

A teacher should be a man fair minded in all his dealings with his pupils, since his relations with them are so varied, and as they look to him in much the same way as people do to a judge of breadth and fairness. The importance of this characteristic in a teacher cannot easily be overstated. In Shakespeare we have a good example of this quality.

In his plays he never sympathizes with wrong-doing, but yet he was not rash in doling out punishment. He may have been too lenient with Proteus, Iachimo, and the villain brother of Prospero. True, these probably deserved more than they received in simple justice, but Shakespeare considered them as men, as human beings, and those whom they offended as being large-hearted and broad in their views, sufficiently so to forgive when the offenders showed repentance. How befitting all this is to the spirit the teacher should display.

As another example, take "Richard II." On the one hand may be put what Richard says:

“Not all the water in the rough, rude sea  
Can wash the balm from an anointed king ;  
The breath of worldly men cannot depose  
The deputy elected by the Lord.”

But on the other hand, he has to consider the results of Richard's misdeeds when he says, in the words of Gaunt :

“This land of such dear souls, this dear, dear land,  
Dear for her reputation through the world,  
Is now leas'd out, like a tenement, or pelting farm :  
England, bound in with the triumphant sea,  
Whose rocky shore beats back the envious siege  
Of watery Neptune, is now bound in with shame.”

This splendid balance which marked him as a man worthy of respect and honor is everywhere apparent.

Again, a teacher should be a student of human nature and he in sympathy with it. Since his success will be measured by his capability to understand and interpret the various manifestations of the minds of those with whom he has to do. A study of Shakespeare will rouse his interest in this direction, and will, to a great extent, direct his thinking along profitable lines. First, then, under this phase of the subject may be noticed briefly his keenness of perception into men's motives.

Antonio, speaking to Salarino of Shylock, remarks :

“He seeks my life ; his reason well I know ;  
I oft deliver'd from his forfeitures  
Many that have at times made moan to me ;  
Therefore he *hates* me.”

Constance, speaking to Austria, says :

“Thou slave, thou wretch, thou coward ;  
Thou little valiant, great in villany !  
Thou ever strong upon the stronger side !  
Thou fortune's champion, that dost never fight  
But when her humorous ladyship is by  
To teach thee safety !  
Thou wear a lion's hide ; doff it for shame,  
And hang a calf's-skin on those recreant limbs.”

His ability to read character is finely shown in this, taken from “Julius Caesar” :

“I do not know the man I should avoid  
 So soon as that spare Cassius, he reads much ;  
 He is a great observer, and he looks  
 Quite through the deeds of men ; he loves no plays  
 As thou dost, Antony ; and smiles in such a sort  
 As if he mocked himself and scorned his spirit  
 That could be moved to smile at anything.  
 Such men as he are never at heart's ease  
 While they behold a greater than themselves.”

He also has observed how some men who rise in the world forget that which helped them up :

“Lowliness is young ambition's ladder,  
 Where to the climber upward turns his face ;  
 But when he once attains the utmost round  
 He then unto the ladder turns his back,  
 Looks in the clouds, scorning the base degrees,  
 By which he did ascend.”

He had the psychologic and philosophic spirit, too :

“Tell me where is fancy bred,  
 Or in the heart, or in the head ?  
 How begot, how nourished ?

And Macbeth when he finds that the various conditions of his retention of the kingship, as stated by the witches, were being cut away until only one remained, clings to that one ground of *hope*, showing the psychologic fact that *hope* will hold out until the last prop falls. How philosophic he is in Hamlet's soliloquy, and here :

“Cowards die many times before their death,  
 The valiant never taste of death but once ;  
 Of all the wonders that I yet have heard,  
 It seems to me most strange that men should fear,  
 Seeing that death, a necessary end,  
 Will come when it will come.”

He is not only a student of human nature, but he has a large heart of sympathy for it, especially for its weaknesses. With what kindly interest he follows the unstable Richard II. through all the ups and downs of his strangely chequered career. And for Arthur, how much we feel the touch of human sympathy ; and more especially do we observe this in the warm interest he shows towards

the thoughtless Prince Hal. See how he is always expecting better of him :

“ So, when this loose behaviour I throw off,  
And pay the debt I never promised,  
By how much better than my word I am,  
By so much shall I falsify men’s hopes ;  
And, like bright metal on a sullen ground,  
My reformation, glittering o’er my fault,  
Shall show more goodly, and attract more eyes,  
Than that which has no foil to set it off.  
I’ll so offend to make offence a skill ;  
Redeeming time, when men least think I will.”

You can feel the throb of pride in the poet when his favorite *bad* boy changes and receives the deserved praise :

“ We are blessed in the change ;  
Hear him but reason in divinity,  
And all-admiring with an inward wish  
You would desire the king were made a prelate ;  
Hear him debate of common wealth affairs,  
You would say it hath been all-in-all his study !”

And so, how often the heart and energies of teacher follow the boy who *appears* to be no use. And here let it be once more emphasized, how much more of power and force in the teacher gifted by *nature* and by *study* with an insight into the working of the human mind and sympathy for those minds with their curious blending of thought and feeling of goodness and evil.

And, again, surely *this*, too, will be of interest and of real practical value in teaching and for the inspiration it will give, I refer now to those fine bursts of imagination, what a culture value they possess :

“ Look how the floor of heaven  
Is thick inlaid with patines of bright gold ;  
There’s not the smallest orb which thou behold’st  
But in his motion like an angel sings,  
Still quiring to the young-eyed cherubins :  
Such harmony is in immortal souls ;  
But, whilst this muddy vesture of decay  
Doth grossly close it in, we cannot hear it.”

And Prospero, in the “*Tempest*,” when he says :

“ These our actors,  
As I foretold you, were all spirits, and  
Are melted into air, into thin air :  
And, like the baseless fabric of this vision,

The cloud-capp'd towers, the gorgeous palaces  
 The solemn temples, the great globe *itself*,  
 Yea, all which it inherit, shall dissolve,  
 And, like this unsubstantial pageant faded,  
 Leave not a rack behind."

How much the teacher is influenced in moral content and general culture by the thoughts he memorizes and by the language clothing these thoughts! How great the influence on those under his charge! Time will not permit the discussion of other important qualities such as his wit and humor; his value for information and other divisions which would be of great interest and value.

But in closing I must not forget to note his value to the teacher of history. How he brightens up the pages of English history. How he makes the men and women act over again the stirring times in which they moved; and what a warmth seizes the teacher as he treads the ground again and views it through the soul of that great dramatic painter. How vividly the characters of the kings and chief men and women are impressed upon the mind and to how much of enthusiasm the teacher is able to instil into his pupils.

And how grand the ring of his patriotism, which, being absorbed by the teacher, deepens his love and admiration for that grand old country and its grand old flag. And how his heart swells at the thought that we are part and parcel of the noble English nation. If the teacher commits passages like these to memory how much of inspiration will they always remain:

"This England never did, nor never shall,  
 Lie at the proud foot of a conqueror  
 But when it first did help to wound itself;

and

Nought shall make us rue  
 If England to itself do rest but true."

And,

"This royal throne of kings, this sceptr'd isle,  
 This earth of majesty, this seat of mars,  
 This other Eden demi-Paradise;  
 This fortress, built by nature for herself,  
 Against infection and the hand of war;  
 This happy breed of men, this little world;  
 This precious stone, set in the silver sea,  
 Which serves it in the office of a wall,  
 Or as a moat defensive to a house,  
 Against the *envy* of less happier lands;  
 This blessed plot, this earth, this realm, this England."

*THE IMPORTANCE OF FACTS IN THE TEACHING OF  
LITERATURE.*

F. F. MACPHERSON, HAMILTON.

Although the teaching of literature has been, generally speaking, rescued from its old state of being a mixture of grammar, etymology and philology, there are some difficulties still for young teachers as to what stress to lay on the facts which are found in literature.

The two questions involved in this subject are: (1) How much of literature is fact? (2) How far in literature may truth of fact be perverted without interfering with the truth of literature or with our appreciation of literature? (By *fact* here is meant, roughly speaking, all that we know of physical nature or of anything outside physical nature that is verifiable by observation and experiment.)

R. H. Quick makes individuality of conception and permanence of form the necessary qualities of literature. Now, individuality of conception implies the personal element which is at the basis of all literature. Every person has his own way of looking at things, not necessarily opposed to that of others, and not necessarily more or less true because different from that of others. It simply means that we consider objects as related to ourselves, to our idea of a perfect self. If a dozen people look at a single object, *e.g.*, a fine building, no two will have the same conception of it. This difference is caused by the operation of the imagination and thus the first question really resolves itself into a discussion of the nature and office of the imagination. Let us think of the selecting and combining power of the mind which is included in imagination. A poet wishes to convey to others a truth which has impressed him, and to do this he selects those facts only which suit his purpose and neglects all others, no matter how true, and adds to them

"The light that never was, on sea or land,  
The consecration and the poet's dream."

Tennyson states the matter clearly in *Lancelot and Elaine*:

"And all night long his face before her lived,  
As when a painter, poring on a face,  
Divinely, thro' all hindrance, finds the man  
Behind it, and so paints him that his face,  
The shape and color of a mind and life,  
Lives for his children ever at its best  
And fullest."



Here you have the sharp distinction between a portrait, the product of the imagination, and a photograph, the mere transference of the actual features and expression to paper. What the painter wishes is to represent the real man, the man "at his best and fullest." To do this he disregards the varying expressions of the face, the "hindrances," and fixes on his canvas an expression which perhaps was never actually seen but which, nevertheless, is a better revelation of the person's real character than any fleeting expression could be. For the expression is just the work of a passing emotion and that one which would reveal the sum of the character would be visible only at some great crisis of life, if at all. This same selective and creative act is seen in all works of art. What the artist desires is to fix the attention on some one feature of beauty, whether of form or of idea, and to do this he omits all irrelevant facts and inserts others, not present in reality, in such a way that it may be said that in no great poem can a word be found which does not relate to the central idea, and in no great painting a line or a color which can not justify its presence by the same reference.

Our conception of course depends on our knowledge of facts. Every reader must know the facts used by the author, if he wishes to understand his conception, but only so far as is needed for the purpose of the author. In Tennyson's "Bugle Song," for instance, we must know what a sunset is, especially in mountains, near water, etc., but we do not need to understand the scientific explanation of the colors of sunset, etc. All the facts Tennyson uses in this song are only a means to an end. What he wishes is to state his idea of the beauties of human life when inspired by love. He takes one of the most beautiful and complete pictures of nature; one of the most beautiful sounds, a bugle-note among the hills, and compares them, as to effectiveness, with the most beautiful thing in human life, the influence of love. The sunset and the echo, though beautiful, are brief; the echoes of love in the life of man grow louder and stronger with time. The fact, too, that the beauty of nature he had in mind when he wrote this was what he saw at the Lakes of Killarney does not make this a poem descriptive of that place. The two beauties, of sight and of sound, are merely *types* of perfect beauty.

Individuality of conception implies also emotion. Every personal reference implies feeling. No mere statement of fact can enter into literature until, by such personal reference, feeling is

aroused. Even in descriptive poetry, where there seems to be most fact and least feeling, the aim of the poet is to place the picture in which he has found delight before others, in the hope that the same delight may be given to them. When an artist calls attention to a moss rose or to a brilliant sunset, he does it because it satisfies some part of himself. But descriptive poetry is not the highest kind of poetry. Let me quote Lowell's words :

- “They tell us that our land was made for song,  
With its huge rivers and sky-piercing peaks,  
Its sea-like lakes and mighty cataracts,  
Its forests vast and hoar and prairies wide,  
And mounds that tell of wondrous tribes extinct.  
“But poesy springs not from rocks and woods ;  
Her womb and cradle are the human heart,  
And she can find a nobler theme for song  
In the most loathsome man that blasts the sight  
Than in the broad expanse of sea and shore,  
Between the frozen deserts of the poles.”

When it is said that the poet uses facts for a purpose, it is not implied that he despises them. There is scarcely a scientist who could excel Tennyson or Wordsworth in accurate observation and clear description. The poets, however, were not observing and describing with that as their end, but they understood, nevertheless, that the scientific or intellectual element must not be neglected in their building up of “a final beauty—the unity of the whole.”

There are some who condemn poetry because of its deviation from fact, whose study of poetry, if they ever study it, is limited to an investigation of the scientific accuracy of the writer. With such it is useless to expostulate. On the other hand, there are those who are afraid that the discoveries of science and the accumulations of facts will limit the field of the poet and prevent the growth of poetry. Poetry, they say, lives on mystery and the discoveries of science are dispelling the mystery. Even so, there is mystery enough left after all discoveries, and, besides, there are ever-recurring mysteries which no progress in science, no accumulation of facts, will ever take away, which each individual must re-discover and re-solve for himself. Psychologists may talk till doomsday about the emotions, about physical expression, afferent and efferent nerves, nerve centres and the like, but everyone must learn for himself what it is to love and to hate, to be merry or to be sad. It is with these forces themselves that the poet has to do, not with any of the facts observed about them.

One more point in connection with this question. A poet is compelled to express his thought in words. A little investigation will show that a great many of our most abstract words were originally used of material things, and owe their present force to the power of comparison. Trace a few such words back to their origin and be convinced. A poet is compelled to dress his thoughts in words and facts that are intelligible to the world, if he can find them. Sometimes he has a thought, a feeling, which he "cannot all express," because the language of fact is limited. In an essay on "The Imagination," George Macdonald put this clearly. "For what are the forms by which a man may reveal his thoughts? Are they not those of nature? But although he is created in the closest sympathy with these forms, yet even these forms are not born in his mind. What springs there is the perception that this or that form is already an expression of this or that phase of thought or feeling. For the world around him is the outward figuration of the condition of his mind; an inexhaustible storehouse of forms whence he may choose exponents—the crystal pitchers that shall protect his thought and not need to be broken that the light may break forth." These forms of nature, or facts, are therefore the vehicle for expression by the poet of something which can not be classed as fact.

Our second question presents little difficulty if what already has been said is correct. Truth of fact may be perverted provided that such perversion serves the central purpose of the artist. Aesop's "facts" are not true because animals do not talk as human beings do; but Aesop has a purpose to serve. The "facts" in Lewis Carroll's stories are the reverse of true, but he turns his world upside down for a purpose. A perversion of fact is wrong only when it cannot be justified by reference to such purpose. There are writings where such perversion does not seem to be justifiable in this way, but we allow such fairy stories and mythologies to pass because, though men have lost belief in them, their origin is well-known and we consider them merely as a body which contains a soul. We accept a Caliban as well as a Richard II. When there is no such truth to be expressed, perversions of fact are not literature; they are lies. "Baron Manchausen" is scarcely literature.

Sometimes perversion of fact arises through ignorance. If so, it is allowable if it does no harm to the author's purpose. Shakespeare's false geography and anachronisms do no harm to his plays.

Hamlet is sent to Wittenberg and his contemporaries use artillery, but the play isn't hurt by those things.

In conclusion, it may be said that with facts as facts pure literature has little to do. It records facts, not for their own value, but simply as a means to an end, as a vehicle for truth other than fact. The whole trouble with the teacher or critic who insists on slavish fidelity to fact in art of any kind is his lack of the artistic faculty, arising from a misconception of the office of the imagination. He forgets that without imagination there would be no knowledge possible, that the imagination lifts us from what we know to what we may know; in short, he forgets that faith, not knowledge, is the highest act of reason.

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*THEORIES OF KNOWLEDGE IN RELATION TO TEACHING.*

F. TRACY, TORONTO.

This is part of the larger question of the relation between theory and practice in general. In spite of the disposition, sometimes manifested, to divorce these from one another, and to lay all emphasis upon practice, to the depreciation of theory, we must hold to their vital and inseparable association. Theory without practice is empty, practice without theory is aimless and fortuitous. So in teaching. The best work in the school-room is done under the guidance of insight into the underlying principles upon which it all rests, and into the true end at which it all should aim.

By a theory of knowledge we mean just such an insight into the nature, conditions, and worth of knowledge itself, as shall determine the direction of our pedagogical activities and aims. Avoiding technical phraseology so far as possible, we may say that a theory of knowledge involves an opinion on each of the following questions, among others :

1. Is the mind active or passive in knowing? If the teacher regards the pupil as a passive recipient of knowledge, his method will be that of "pouring in" something which he calls knowledge, into this mental receptacle. Mind will be a place to put things; and the teacher's motto will be "A place for everything, and everything in its place." If, on the contrary, he believes that knowledge absolutely requires the activity of the pupil's mind, that knowledge is not a thing that can be put into a place, but a form of the mind's own energizing, then he will aim at arousing and stimulating this activity, rather than at "imparting" knowledge. He will *tell* as little as possible, and his constant endeavor will be to *elicit*, to *draw out*, to *develop*, that mind-energy which constitutes knowing.

2. What is the rôle of the senses in the acquisition of knowledge? If we have intelligently observed our pupils, we shall be convinced of the vast importance of the senses, especially in the case of the younger pupils. We shall therefore do all in our power to cultivate the faculty of sense-observation. But if we have really made intelligent study of the subject we shall also know that *mere* sense-observation is not by itself sufficient. All that is received by the senses must be reconstructed by the intelligence before knowledge can ensue, and we shall therefore not rest content with

the mere presentation of concrete things to the senses. We shall also endeavor to stimulate the active powers of the mind to this intelligent reconstruction.

3. What is the order of development in knowledge? This question is psychological rather than epistemological, and yet it is of such a character that we may consider it in our present discussion. It is of great importance to know that the easiest, and therefore the earliest, judgments are those in which the more striking sense-qualities of things are apprehended; afterwards come those of a quantitative and causal nature.

4. What, after all, is the real value of knowledge itself, in relation to education? Is knowledge the final end, or is it a means to some other end beyond itself? The teacher who takes the former view, will devote his whole energies to the realization of the knowledge-product in his pupil. He will aim to make his pupils *learned* persons, and will be satisfied when that is accomplished. But if knowledge is seen in its true light, as a means to character, then the teacher's whole perspective is altered accordingly, and his entire energy receives a new stimulus, a new motive, and a new end.

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*NATURE STUDY.*

W. H. ELLIOTT, B.A., TORONTO.

In recent years no department of education has received greater impetus or been subjected to fiercer criticism than that of nature study. The pendulum of human affairs now, as ever, swings from extreme to extreme, and this no less in education than in affairs political and religious. The history of education reveals the fact that for centuries the study of language, chiefly formal, of mathematics and history, formed the sum total of educational matter. The weakness of such a system, and its lack of adaptability to childhood for many years had been felt, and there was substituted a not much less formal study of nature, which, in these later days, with a much wider and deeper insight into and sympathy with the child, has resulted in a more rational course of nature study.

In this short paper my purpose is to set forth, as clearly as I can, three points, viz., (1) The import of nature study. (2) The aims, primary and secondary, in teaching this subject, and (3) The methods to be used as means for attaining these ends.

## WHAT IS NATURE STUDY?

Literally, and in the widest sense, nature study is the study of nature in her varied forms and phenomena. The term, however, is in these days much more restricted. It has to do with the personal observation of nature's changing forms, and through these with the life and laws in which they all are unified. The term nature study better expresses the spirit in which the work should be carried on, than its method or definite content. It has a most intimate association with elementary science, in so far as it has to do with the facts and phenomena of science; but its spirit and purpose is defeated if the cataloguing and classification of the scientist or his search through laboratory experiment and nicety of reasoning be substituted for the direct personal and independent observation by the pupil of his natural environment.

There is some confusion at present concerning the definite spheres of nature study and elementary science. The main difference is threefold, viz., in the content or subject matter, in the method employed, and in the general spirit and aim in the work. Science

looks more to the form and structure, nature study to the life permeating that form, adapting itself to its environment, and explaining that form. In method, elementary science is more rigid in systematizing its data, nature study is more extensive in its view, and less intensive as regards the grouping of objects into classes and facts about a unifying principle or law. The underlying cause of these differences is found in the difference of spirit and aim infused into the work. It will thus be seen that nature study becomes the foundation for many of the sciences, and the correlating centre of all natural sciences, the isolated facts of the early years passing into related experiences under the growing power of comparison and reason. The great danger to be avoided is the too early introduction of classification among the facts observed, thereby destroying the fundamental interest of the pupil in the work.

Nature study then is a study of nature. It is not the study about nature, either through reading or through hearing a teacher or person talk about it. It means much more than school-room study, although this may be parallel with and supplement it. Nature belongs out of doors, and there we must go to study her manifestations. The laboratory for nature study is in the woods and fields and under the blue sky, and the only instruments and appliances are the seeing eye, the hearing ear and the understanding heart.

Real nature is a state of becoming, not of being. It is more than mere form or structure. It is instinct with life and change and development. Nature study attends to the life history of plants and animals, and to the functions performed by their various parts, as well as to their form and structure; it directs the pupil to the changes through which the rocks are passing, as well as to their structure and composition; it emphasizes the forces now affecting the earth, and the processes which have conduced to its present condition, as well as the present forms and features of the earth.

Again, nature is not a mere aggregation of forms and materials, but a unity of related and interdependent parts. Every phenomenon stands in vital relation to a host of other phenomena. The cloud, with its consequent rain, hail and snow, is dependent upon heat and evaporation. The commonest plant is the crowning result of the harmonious adjustment of its various organs and of their mutual labor toward a common end. It is related to and dependent upon soil, air and sunlight. It is related to insect life in its



fertilization. To man it bears an æsthetic and economic relation, while it forever points up to its Maker and Protector.

Nature study, then (to adopt the words of a recent writer), must take cognizance of the following relations:

1. "*To the Whole of which it is a Part and to the other Parts of that Whole.*—The leaf or flower is not merely a leaf or flower, but is related to the whole plant and to every part of the plant. This brings out function, or use and plan.

2. "*To Natural Environment.*—The plant or animal is related to water, soil, food and air. This brings out life and function, and adaptation of structure to function, and impresses mutual dependence and co-operation.

3. "*To Past and Future.*—The study of the present form is incomplete until its life history is investigated. The rain-drop is but one stage in a long series of changes or transformations. The fragment of rock or soil is most wonderful and instructive when considered as a history of the past and a prophecy of the future.

4. "*To other Individuals*, similar and dissimilar.

5. "*To other Phenomena*, bearing upon it as cause and effect.

6. "*To Man*, ministering to his material, æsthetic, ethical and spiritual needs.

7. "*To the Creator.*—Nature reveals a designer and protector, and nature study misses its highest object and greatest value unless it leads to that which is above nature.

8. "*To the School and School Work*, as a means of interesting and stimulating children, as a basis for expressive work, and as a preparation for and aid in geography and literature."

To sum up, then, *nature study is the study of nature in her relations by the child, and from the child's standpoint.*

#### THE AIM IN NATURE STUDY.

Having determined the nature of the subject, it will be necessary to investigate the aims to be pursued, primary and secondary, in order that the way may be paved for a discussion of the methods to be used as means for the attainment of these ends. The end will determine the means, by attracting to itself such conditions as tend to its realization.

If we desire that the pupils have a knowledge of the form of the buttercup or rabbit, and at the same time secure development of their power of seeing and describing clearly and accurately, then

we will be satisfied with their dissection of these organisms, and the drawings of the parts observed. If our object be to train their powers of relation and discrimination to the end that they may be able to class these things, then we shall have them compare the structure of the buttercup and rabbit with those of other plants and animals. But if we wish to cultivate in pupils a more active sympathy with nature, and lead them to feel their intimate relation with and dependence upon nature, and thereby develop the higher side of their character, then we shall emphasize life and function, and adaptation to environment. Thus the ultimate value of the work performed in this or any other study will be determined by the aims of the teacher and his attitude towards the child.

A survey of the aims of all educational methods for the past century discloses the fact that for many years the acquisition of knowledge was considered the great object, and its natural outcome was the study of books as the storehouses of facts. Indeed, we are not yet wholly freed from this ideal. But thoughtful teachers have long realized the inadequacy of knowledge thus obtained. To science belongs the credit of overthrowing the book *régimé* and of substituting therefor personal and independent investigation. The laboratory method ensued, and its application was extended beyond the subjects of science proper, to even history and literature. All this is the result of a consciousness of the weakness of knowledge *per se* in comparison with the development of power, as an educational ideal.

The development of Nature Study has paralleled this development in general education. The first phase placed emphasis on information and fact, and gave rise to a host of Nature Primers and Nature Readers, which were eagerly devoured by teachers and rehearsed to wondering pupils. A deeper insight into child nature, combined with a growing dissatisfaction with the individual and gross result, initiated a new phase of the work in which the up-building of power to see clearly, judge accurately and express truthfully, was made prominent. In scores of our schools Nature Study has won a high place as an aid in intellectual development. "It has given not merely the clearer vision and more certain knowledge which comes to those who walk by sight and not merely by faith, but the power crystallizing into habit of careful, exact observation; the corresponding power of clear and truthful expression in language and drawing, which must come when the impression is clear and exact, because based on interest and actual

observation; the habit of asking the 'Why' and 'How' of the world around them, and perhaps best of all, the marked improvement in individuality and self-reliance resulting from the consciousness of power."

But are the awakening of interest, the acquisition of knowledge, and the development of power the sum of all the possibilities of Nature Study? Does its mission find richest fulfilment in these ends? A knowledge of the potentialities of the child, coupled with a deeper insight into the life of nature, has resulted in the conception of a still higher aim. The possession of knowledge and of power without something behind and above to control and direct, may work the destruction of the pupil and be a menace, not a blessing, to society. Goethe says: "Nothing in the world is so terrible as activity without insight." Without a right attitude toward nature controlling and directing the child impulses, our wild flowers will be carelessly plucked, our shade trees stripped and broken, our feathered songsters destroyed, and a decidedly evil tendency thereby reflected in the child.

Along with the aims above enumerated and surpassing them in relation to the life of the pupil, must go the cultivation of an active sympathy with nature. This will be strengthened by such a study of the life histories of plant and animal as will lead to an appreciation of their kinship to humanity, and by an understanding of what nature does to and for us. Vitally associated with this is the cultivation of the æsthetic sense—the appreciation of beauty—beauty not merely of form and color, but the deeper beauty arising from the harmonious adjustment to function and environment. The analytic study of the form and structure of the dandelion will doubtless arouse the interest of the pupil and develop his intellectual power, but if it is to yield the richest results for him, the life permeating form and structure, and adapting them to its purposes, must be felt; the co-operative relationship of its various parts, and their adaptations to soil, air, moisture, sunlight, and to plant and animal life, must be realized. In apprehending this, a new beauty fills the student, subduing and transforming the grosser elements of his being. Such feelings possessed Wordsworth when he wrote:

"For I have learned

To look on Nature, not as in the hour

Of thoughtless youth; but hearing oftentimes the still sad music  
of humanity,

Nor harsh, nor grating, though of ample power to chasten and subdue.

And I have felt a presence that disturbs me with the joy of elevated thoughts."

. . . . .

" Well pleased to recognize

In Nature and the language of the sense,

The anchor of my purest thoughts, the nurse,

The guide, the guardian of my heart and soul

Of all my moral being."

Nor is this æsthetic appreciation fully developed until it looks beyond the beauty of adaptation and function, beyond that of co-operative and mutual helpfulness to that of beauty of unity in plan, and even above beauty of plan, to the Planner. Thus the æsthetic fades gradually into the moral through the awakening consciousness of a spiritual relationship to Him in whom "all things move and have their being."

From a consideration of these higher aims in Nature Study we see the necessity of correlating it with literature and art. Much of the most beautiful in literature and art has been inspired by nature, and an appreciation of this can be attained only through a sympathetic interpretation of nature. And the teacher who neglects to direct his pupils to the beautiful thoughts which others have gained from nature, misses one of the great opportunities of Nature Study.

We have thus far considered Nature Study in relation to the development of the child as an individual, and in his relation to school, and have arranged the aims in the order of increasing importance, viz.:

1. To awaken an interest in nature as a motive to investigation.
2. To develop a knowledge of his physical environment.
3. To develop his intellectual powers and form right habits of mind.
4. To cultivate the child's æsthetic, ethical and spiritual nature and lead him towards God.

In his relations to school there are the secondary aims, viz.:

1. To give the child such an understanding and appreciation of nature as will enable him to interpret and enjoy the literature and art inspired by nature.
2. To give the child clear impressions as a basis for his expressive work, language reading, drawing and modelling.

3. To give him clear and accurate ideas concerning his physical environment as a basis for the study of his broader environment—geography.

But man "lives not unto himself." It is well, therefore, that we consider for a moment whether our view-point has been sufficiently elevated to enable us to take in the various relationships which influence and are influenced by the child.

Children are not isolated units, and any method treating them as such falls short of the ideal. They are beings vitally related to their environment, and only such aims and methods as tend to bring them into harmonious relations with this environment bear the stamp of perfection. And here will be found the test which led us to the order of the aims cited above. The increase of knowledge and the development of intellectual power, looking as they do to the child as an individual, are relatively low aims, while the development of a sympathetic interest in and love for nature is a relatively high aim, because it brings the child into closer relations with his environment.

Roughly speaking, the environment of the child is threefold—his physical environment or nature, his intellectual environment or man as an intellectual being, and his spiritual environment or God.

The highest aim then, of Nature Study is to perfect the relations between the child and this environment—to assist the child to adapt himself to this threefold environment.

Now what does this adaptation to environment imply? Heretofore it has had but a one-sided and selfish application. Environment has been treated merely as an adjunct and servant, nature was but to minister to man's material needs and its resources have been despoiled; man was a tool in the hands of the more fortunately circumstanced to be manipulated in trade and commerce for personal aggrandizement irrespective of the physical and moral effects upon human kind. Even the spiritual environment has been similarly treated in man's refusal to return an adequate service for the benefits received.

But a wonderful change is coming over man, and a higher view of his relation to environment is gaining way. The farmer has learned that he must give to his fields if he reap in return, and the nations, no more than our own, are awakening to the fact that protection of forests is a necessity, and are just beginning to plant where their energies were spent in destroying. The growing idea of the

“brotherhood of man” is supplanting the old idea of man’s relationship to man by the consciousness that “he is his brother’s keeper,” and responsible for an adequate return for service rendered. And let us hope that the human instrumentalities for spiritual advancement are regarded less as sources of personal uplift than as means for increased service.

Adaptation to environment means then more than making our environment minister to our needs; it carries with it the obligation to perform towards it a service commensurate with the advantages reaped.

The child’s education is derived through the medium of the senses. All right methods appeal to the exercise of the senses that the child may have basal ideas. Nature Study offers the only available field in which the child can form these ideas and thereby lay the foundation for future mental development.

As the pupil observes the beauty of form and color in nature, and appreciates the deeper beauty of adaptation, as he watches the plant or animal develop, appropriating its environment to the realization of its end, an understanding of his surroundings will ensue, coupled with an appreciation of what he received from nature, and what he owes to nature in return, and this appreciation will be strengthened when he is led to express it in action by personal care of plants and animals.

Once the right attitude towards his natural surroundings has been fixed, the pupil’s relationship to man or his intellectual environment is indirectly modified. As he discovers the co-operation and mutual helpfulness among the units of nature, he unconsciously becomes a co-operative factor in the human society at work for the good of all. While the lessons of protection and care of the Infinite for his creation will lead to a deeper appreciation of his own spiritual environment.

#### METHOD.

Now that the province of the subject has been determined, and the aims to be attained in teaching it outlined, the discussion of method is much simplified.

Keeping prominently in view the child, his natural instincts, his innate tendencies to activity, and the normal method of the mind’s action in developing knowledge and organizing faculty, certain fundamental principles at once present themselves, viz.:

1. The work should be wholly objective. The nature lesson

should never degenerate into an information lesson in which the pupil is purely receptive. Whether conducted within school or without, the pupil must work in contact with nature.

Every school-room lesson on objects, grown, kept or brought into the school-room, should point to nature outside, intensifying the child's desire and increasing the power to search nature's storehouse for new treasures. It is only by bringing the child into direct contact with the open book of nature and teaching him to interpret it intelligently and sympathetically that a genuine love for nature can become to him a permanent possession.

2. The pupil must do the work, at times under the guidance of the teacher, frequently without this direction. Children will soon find their eyes as they have found their feet, if they are given the privilege. Direct personal contact with nature will be followed by personal observation, and this in turn by a rational relating of the facts observed. In no study more than this is the dictum, "Do not do for the child what he can do for himself," applicable. This, however, is a general dictum, and is not intended to exclude the occasional illustration by the teacher of the wonders of nature for the purposes of whetting the appetites of pupils for their work. In our own school such is effectively done by means of lantern slides, the microscope, or directly from nature specimens.

3. The order of the work should be: (1) Life and relation to environment; (2) habits or function (life history); (3) structure and life history; (4) comparison and classification, or association and generalization, according to the materials with which we are working. Mere form and structure are uninteresting to pupils, until the life permeating that form and functioning through it gives it meaning. The form and structure of plant or animal are primarily effects, the cause for which is found in adaptation to environment. Therefore, considered logically and in relation to the fundamental interests of childhood, the first steps in Nature Study should be devoted to the observation of the life and habits of plants and animals. This will be followed later by a study of form and structure as the output of life in meeting with and using environment. This in the higher classes will be followed by such comparison of these forms as will lead to their being classified. At this point nature study passes into pure science.

4. There should be a definite aim in the work as a whole, and in each lesson. This implies a plan of work definitely outlined, adapted to the seasons and to the locality. This plan, however, in

justice to the nature of the child, must not be so rigid as to preclude departure from it when occasion demands. Many of our best nature lessons are unpremeditated. The teacher must be sufficiently directive to insure relation and unification in the knowledge of the pupil, and not to the extent of hampering his self-activity. It is well at the beginning of most lessons in nature study to state just what the aim or centre of the lesson is. This will serve as a unifying centre towards which the facts observed will gravitate and will tend strongly to prevent digressions.

Another means of keeping pupils to a definite line of thought is the interrogative method. This is invaluable in leading the children to an abstraction or general truth. But a constant questioning interferes with connected observation and description and connected thinking. That style of questioning is to be avoided which relates the facts for the pupil. This fosters dependence upon the teacher rather than self-helpfulness. The excessive use of questions is an abuse rather than a proper use of the development method. "In general, the fewer and broader, and, at the same time, the clearer and sharper the questions, the better the results in getting the pupils to think for themselves."

Lastly, and in accord with the highest aim of Nature Study, the child should be led to unify his knowledge, and thus appreciate the unity in all things.

All creation is a unity (universe) made up of many and diverse parts. Each part is intimately related to every other part and to the whole. It is only through the harmonious adjustment of these diverse parts that the unity is evolved. Not one of these parts "lives unto itself," but each in its own way contributes to the end of the whole. Now what is true concerning this great unity is equally true of each of its component parts. The principles governing the universe are at work in each particular. The bodily members of the animal organism in their individual functions are not unmindful of the body through which they act. The plant performs the processes towards the attainment of its life-work only, through the harmonious conjunction of its roots, stems and leaves.

The plant is engaged, like man, in the solution of a life problem, and in this it assists itself through the specialization of parts of its organism. Root, stem and leaf, each plays its part in the realization of this general end, and takes unto itself such form and structure as most effectually contributes to this end.

The child is educated in proportion as he can and does relate the



ideas gained ; that is, in proportion as he recognizes in his environment and realizes in himself unity. In the ultimate analysis, all the aims of Nature Study enumerated above, are from a psychological standpoint, manifestations or resultants of this unifying tendency of the mind. The awakening of interest and sympathy, the cultivation of the æsthetic, ethical and spiritual nature, the development of power to see clearly, describe truthfully and judge accurately, and the acquisition of knowledge, are all means or processes of establishing unity in the mind.

That this unity may be attained the following suggestions are offered: (1) In the earlier years and in the lower grades, life and living nature should be emphasized. (2) The plant or animal should be studied as a whole or unit, and in relation to its environment, and in its subsequent more detailed study, its various parts should be viewed in relation to the whole. (3) Types should be selected for special study. These should be of such a nature as can be conveniently observed by the pupils, and as will appeal strongly to them. These types will serve as centres to which other similar individuals will be related, as well as a means for comparative study. The relations which lie at the foundation of this unity are those of dependence (including casual relations) and those of similarity and difference, the first, functional ; the second, structural. In the past, emphasis has been placed on the latter, but in the light of the foregoing it will readily be seen that functional rather than structural relations should be made prominent. The structural are but the result of functional relations, and find their significance in them.

Facts which explain many other facts, and about which knowledge gathers, should be emphasized. In the study of the leaf, the fact that it is an organ for exposure to air and sunlight will explain many other facts, such as shape, size, relative position and structure, which, if considered apart from this dominant fact, would be meaningless. Again, "if the pupil has through some simple experiment learned that evaporation takes place through leaves, it will be easy for him to understand why plants are apt to turn to leaf in a wet season, why plants growing on low ground have greater leaf surface than plants growing on the upland, why leaves of plants curl up in dry weather, and why weeds rob the soil of moisture, etc., etc." This is of equal importance in the realms of physics. The related facts of evaporation and condensation becomes a centre, in which many phenomena, as rain, hail and dew, find their explanation.

## INSPECTORS' DEPARTMENT.

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*THE EDUCATIONAL REQUIREMENTS OF TO-DAY.*

W. JOHNSTON, M.A., LL.D., ATHENS.

The one great fact of to-day is the rise of the New Democracy. Wherever the flag of England floats, or the American banner is unfurled, the New Democracy takes rank as a social and political force of the first magnitude. But its influence is not confined to England and America alone. In France, in Germany, in Russia, in Italy, its power is also felt; and the present outlook is that in these countries, as well as in England and America, it will be productive of much good, especially to the masses, if democracy does not bring forth anarchy, which is always more productive of misery than the worst tyranny.

It is believed that this New Democracy has come to stay. Unlike the democracies of ancient and mediæval times, it is an intelligent democracy. Having obtained possession of the reins of State, it has sufficient intelligence to drive the regal carriage safely along the devious windings which intersect the domains of the Demos. The ancient democracy failed because it was ignorant; the new democracy, if it succeeds, will succeed in consequence of superior intelligence; and this superior intelligence it is the duty of the education of to-day to give the masses, as well as the classes.

A practical knowledge of reading, writing and arithmetic is not sufficient. The first requirement of education is the means of acquiring knowledge independently; and this certainly involves a knowledge of the "three R's"; but after this is given the moral side of education is of more importance than a mere extension of book knowledge. Indeed, so much is this the case that intellectual training without corresponding moral development is frequently similar in results to putting a deadly weapon into the hands of a maniac. A sword in the hands of a patriot may be useful in

defence of home and country, but in the hands of a madman it would be used only as a weapon of aimless destruction.

There can be no doubt that the New Democracy is greatly superior to the old in point of morality; and this superior morality will doubtless carry it safely over the shoals and rocks on which were wrecked the ancient republics that clustered around Athens and Rome. In support of this statement I refer you to Mahaffey's "Social Life in Greece" and "Plutarch's Lives."

Sir W. H. Lecky, in his "History of European Morals," finds a principal cause of the downfall of ancient Greece and Rome in the looseness of the marriage relationship. Hadley's "Roman Law" drives us irresistibly to the same conclusion. Francis Galton, in "Hereditary Genius," attributes the intellectual and physical degeneration of Greece and Rome to the same cause. The argument is the same everywhere. A State is an extended family; a family cannot exist without the marriage relationship; hence when marriage becomes unfashionable, the State is menaced through the destruction of family ties, interests and conjugal affections.

The distinctive characteristics of the New Democracy are: (1) It is intelligent; (2) it is moral; (3) its family relationships are deep-seated and enduring. Hence, a primal requirement of the education of to-day is to cultivate the good seed sown among the masses, so that it may bear, abundantly, fruit which will make the intelligent more intelligent, the virtuous more virtuous, and the happy home a still more happy home. History and philosophy, science and mathematics have been the delight for ages of the master minds of earth, but they sink into insignificance when brought into comparison with an education which is capable of raising human beings out of degradation and misery, and of giving them the means and the will to live honestly and happily with a reasonable portion of the necessities and luxuries of life at their disposal.

Closely related to the New Democracy is the labor organization movement. In union there is strength, and, therefore, united labor must be productive of good. But when united labor "goes out on strike" it might be productive of loss to the laborer, as well as to the employer. A man has a natural as well as an acquired right to refuse to work; but he has neither a natural nor an acquired right to prevent others from doing work he has refused to do. The element of coercion, which is generally presented in a strike, is so utterly opposed to natural justice that it cannot act otherwise than

injuriously upon the laborer. The *Montreal Star* is my authority for the statement that the national loss to Great Britain in 1897, due to strikes, was \$75,000,000. What a magnificent endowment fund this sum would make for a poor man's college!

The education of to-day should attempt to solve the labor problem. If it can be proved that "strikes" cost the laborer more than he gains by them they should be abandoned. It is the duty of the educator to give the laborer trustworthy information on important social and political questions, so that he may enter upon his life work with well-defined lines of action placed before him. If this were done, social and political reformation might be accomplished speedily and economically. Under the existing methods of reformation any improvement in the laborer's condition is obtained, as has been shown, at enormous cost on the side of labor, and at a corresponding loss on the side of the capitalist. It is frequently said that "one man's loss is another man's gain." The truth is, then, one man's gain is another man's gain, and education should so imprint this maxim upon the national mind that every employer would give a fair day's wage for a fair day's work, freely and voluntarily, because he believed it to be his interest as well as the laborer's so to do.

There may be great difficulties connected with imparting such instruction as I have outlined, but the importance of such teaching is so great that mere difficulties should not be allowed to prevent giving a knowledge of social and political principles in our Public and High Schools, as well as in the University. The pupil should learn in school what he must practise out of school; that is, in his life work. All through life he has to struggle with social and political problems; his school life does nothing for him if the time is spent in acquiring knowledge, which does not assist him in solving such problems. If such is the case he has virtually to begin his education after he leaves school, and without assistance educate himself. If he fails to do this, he passes through life groping in the dark and grovelling in the dirt, an object of pity or contempt, as whim may direct the mind of his superior, but never a being commanding admiration or respect.

The increased power and influence of woman is the life-blood of the New Democracy. There never was a period in the world's history in which woman exercised the influence which she exerts to-day. The primal cause of this is the teaching of Christianity. In non-Christian countries, such as Turkey and China, the degradation of woman is as complete to-day as it was in the days of the Patriarchs.

The education we are proud to call our own is recognizing the fact that the mind of woman is in no way inferior to the mind of man. The university has now many female students, and the class lists prove conclusively their ability to master the various branches of higher education without more expenditure of mental energy than is required by the ablest male students. It may be that in Turkey "woman has never a soul to save," but in all Christian countries she is the equal of man. And yet socially, and, to a great extent legally, the professions are not open to women. Why should we not have women doctors, lawyers and clergy? Nay, more, would it not be beneficial to the State if we had women legislators? If John Fiske's "Destiny of Man" is ever to find realization on this earth, the medium through which it must come is woman. The W.C.T.U. must go on conquering and to conquer; the Christian Endeavor Society must continue to battle manfully against the powers of evil; the Y.M.C.A. must have the fostering care of woman, and the youth of every land must know that "righteousness exalteth a nation, but sin is a reproach to any people."

This is the kind of education the twentieth century requires. Is it the kind of education the twentieth century will receive? This question the teacher of to-day must answer. If he says *yes* and does his best as an educational worker, the historian of the future may write something like this: "At the beginning of the twentieth century a revival of learning burst forth, which surpassed in purity of morals, in spiritual earnestness and in intellectual vigor the glorious renaissance of the sixteenth century." All that is required is for everyone to do his best. We have the knowledge and the experience of the past at our command. The implements of labor are ready to put into our hands. We have nothing to do but to work. We know where to begin and how to proceed; but we must "work while it is day, for the night cometh when no man can work." The day is short and the night is long and dreary. In our towns and cities, especially, evil habits are generally fixed before the boy is fourteen years of age; and then the work of reformation is long and uncertain. The ideal education gives correct habits in childhood and youth, which is the time when precept and example are most beneficial. The influence of woman at this period far surpasses that of man, because her nature is more sympathetic than man's; and, therefore, any advancement in the educational status of a country is in direct ratio to the interest taken by woman in the education of the people.

The increased interest taken in education proves that the general feeling is in favor of a well-informed laboring community. An educated laborer is a better laborer than an ignorant one; an educated farmer is a better farmer than an ignorant one; an educated mechanic is a better mechanic than one who is illiterate; an educated citizen is a better citizen than an ignorant citizen. These are truths which should be recognized by the educators of to-day.

Again, education prevents crime. The majority of criminals have almost no education. Many of them can neither read nor write. Hence, as a matter of State economy, if for no higher motive, it pays to educate the people. It is better to build schools than reformatories; it is better to build colleges than State prisons. This is the language of business and not of mere sentiment.

The education of to-day should utilize the desire for knowledge, which is so active everywhere. It should direct aright the activities of the youthful mind. It should plant the good seed in the soul before the evil one sows tares. It should give the child something useful to do, and it should keep him doing something useful until doing what is useful becomes a habit as deep-seated and as lasting as life itself.

A distinctive characteristic of the education of to-day is that it is becoming more practical. Manual training schools are something new. It is now recognized that the hand requires training as well as the brain. Ultimately human existence depends upon the labor of the hand; and this fact is sufficient evidence in favor of maintaining experimental farms and the manual training schools. Many a young man is better fitted by nature to earn his living as a farmer or a mechanic than as a doctor, lawyer or clergyman. That young man should not enter a profession; he should adopt the work he is best qualified to do. He may study scientific farming at an experimental farm, or mechanics in a technical college, or he may make himself a farmer on the farm, or a mechanic in the workshop.

The value of this kind of education is so great that it should receive a generous support from the State, in addition to the hearty and intelligent co-operation of an interested public. Political economy as well as common-sense tell us that the strength of the State is measured by the working power of the people. The felt want, in America at least, is more farmers and more mechanics. We have professional men in abundance; but outside of the professions the harvest is ripe, but the laborers are few. Every teacher, every citizen interested in the welfare of this Canada of ours should

attempt to turn the youth of this fair land in the direction of the farm and the workshop; to build up a nation of thrifty and vigorous men and women; to implant in them a love of industry and of country; to give them high ideals and noble aspirations, and above all, to teach by precept and example that the noblest work which can engage the attention of man is to earn an honest living for himself and those depending upon him.

Again, the moral side of education requires more attention. Intellectual development has become almost the only education. Morally and spiritually all are suffering from retrogression. We are not religionists such as John Knox and John Wesley were. We are not even severe moralists. Crime is still rampant. Pessimists tell us the world is not growing better—suicides and murders are acts of daily occurrence. Dishonest practices punishable at law and not punishable at law are so numerous that only a passing notice is taken of them.

Public morality, political integrity and international amity should engage the attention of the twentieth century education. How often it is said that all politics are corrupt; that a politician cannot succeed if he is honest; that only second and third-rate men enter politics, because a first-rate man is too noble in mind and purpose to stain his hands or his soul with such filthy work. I fear there is truth in such statements, and I know history repeats itself. Like causes will produce like effects. If public morality ceases to exist, national disaster must necessarily follow. These are truths which should form an important part of the stock in trade of the education of to-day.

Social and political international relations are now subjects of every-day discussion. The whole world is already akin. Telegraphic cables and electric wires encircle the globe. We are hourly in communication with every civilized nation. We read in the morning newspaper what the people of Europe are doing this morning, and what the people of the Far West were doing yesterday. Trade and commerce make us all neighbors, and why should we not all be friends? International peace conferences should render "the fierce arbitrament of war" unnecessary. Doubtless they will do so in the near future. To hasten this reign of peace, the Scriptural doctrine of "Peace on earth and good-will to men" should be taught in every Public School. The education of the future should render war impossible. The solemn words of the venerable Herbert Spencer, which echoed round the world a few months ago,

will go down to posterity as the voice of a great man, standing on the line which divides time from eternity and uttering with his last breath a farewell word of kindness to suffering humanity: "Whatever makes for peace advances civilization; whatever makes for war is a return to barbarism." We all believe it better to be civilized than barbarous. Then it is better to be peaceable than warlike. Dryden may sing of the time "when wild in woods the noble savage ran"; but our knowledge of the savage pictures to us a being without nobility, a shivering, starving wretch, pursued by foes visible and invisible, and taken in his totality, living a life much inferior to that of the brute; and war inevitably tends to return man to this degrading condition. Surely the prayer of every friend of humanity should be, "Let us have no more war."

The power of the teacher for good or evil is great. His influence over the pupil is surpassed by that of the parent alone. Frequently his ability to give the pupil moral training is superior to that of the parent. In every case the teacher has many opportunities of giving moral instruction. All this goes to show the great advantage of having superior teachers. The teaching profession should receive the services of the best men and women in the country. The most brilliant minds should be engaged in the educational field. This is another requirement of the education of to-day.

The education of this century will do much to make the ideal teacher real. We have many proofs of material advancement before us. In one department at least—science—the knowledge given the student to-day is greatly superior to that given a generation or two ago. Man's power over the forces of nature has increased to such an extent during the nineteenth century that there seems little to be done in the twentieth century. Nearly all that is left us to do seems to be to construct an airship and to make an honest man. Perhaps the first honest man may cross the Atlantic, from America to Europe, in the first airship, and if he does let us hope he may hail from Ontario.

The educators of to-day should impress parents with the responsibility which rests upon them in regard to the education of their children. It is to be regretted that many parents do not value the educational advantages they enjoy as highly as they should. The attendance of pupils at school must depend to a great extent upon the skill, earnestness and energy of the teacher. A "winning way" is a necessary part of the teacher's outfit; and this should be and



is a characteristic of our teachers. The teacher should go into the highways and byways and compel them to come in; but be sure that *love*, not *fear*, is the compelling force.

The State should provide "ways and means" to educate the people. This principle is now recognized as one of the most important functions of civil government. The education of the future will be characterized by liberal State support. Colleges and universities will be supported, in a great measure, by the State, and hence tuition will be free. The education given in these institutions will meet the growing wants of the people. The State will endeavor to send from the college or the university young men and women fully equipped to go to work and earn their living, in some cases doubtless by writing poetry or fiction, but normally by tilling the soil, by mechanical labor, or by mercantile enterprise.

The power of the Church of Christ will be felt in the education of the future, for it is a living force in the education of to-day. It will supply the spiritual element of education, without which no human being can be completely educated. It will move the masses to a higher level of living by its eloquence, and inculcate purity of life on earth by the hope of eternal reward in heaven. It will teach altruism by being altruistic, by continually keeping before the people Christ, the great altruist, by requiring its members to imitate His example in their intercourse with each other.

Such, to my mind, are some of the educational requirements of to-day. Briefly stated they are: (1) The New Democracy requires a directing and controlling power supplied by education; (2) the increased power and influence of woman should be a great educational force; (3) education should be made more practical, in order to meet the wants of a progressive society; (4) the moral side of education requires more attention; (5) public morality, political integrity and international amity should be taught in every school; (6) the teacher should realize that he is a powerful force for good or evil, and that here there is no neutral ground; (7) the parent should realize that great responsibility rests upon him in regard to the education of his child; (8) the State should provide adequate ways and means for the education of all its subjects; (9) the Church should provide for the spiritual side of education.

"On earth there is nothing great but man; in man there is nothing great but mind." This is the last word of philosophy and the constant theme of poetry and history. But man is great only

in his possibilities ; and believing, as we do, in the "survival of the fittest," a brilliant future for this beautiful country is presented to our vision. " We may not live to see the day, but earth will glisten in the ray of the good time coming." The mighty army of teachers who are fighting manfully in the cause of knowledge will build up a people possessed of all the essentials of true greatness.

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*TWO YEARS' PROGRESS IN NATURE STUDY IN  
ST. THOMAS PUBLIC SCHOOLS.*

SIDNEY WILCOX, ST. THOMAS.

That we should, at this date, be discussing a two years' experience in Nature Study in Public Schools is not to the credit of Ontario, as compared with the schools of New Brunswick, Manitoba and the North-West Territories, and the United States. Nature Study is a compulsory subject in New Brunswick schools, has been compulsory in the North-West Territories since 1895, and in St. Paul and other parts of the United States is a fully grown boy of ten or more years.

In England, in 1878, Matthew Arnold said: "We are coming to be agreed that an entire ignorance of the system of nature is as gross a defect in our children's education as not to know that there ever was such a person as Charles I."

Herbart, in Germany, at the beginning of the 19th century, said: "Nature and human beings surround the child continually. They constantly carry around it currents bearing every species of mental nutriment. Would you prepare for it another nutriment than this which offers itself to the child spontaneously? Suppose the child would allow its mind to be filled with African animals, Roman emperors, mountains in the moon, and angels in heaven—would an intelligent, able denizen of this world and would a character conscious of itself be the result? You understand, of course, that in the last resort I desire to banish from instruction neither the African animals nor the Roman emperors, nor the mountains in the moon nor the angels in heaven; only they and all that is remote and as yet strange to the child is to be arranged into connection with what is near and of every-day occurrence, so as to cast a light upon the latter, expand it, freshen it, complement it; it is not to thrust itself into the place of the latter so as to erect instead of the actual world of his occupations and duties a fantastical stage in the head of the child for idly-hovering dreams. In this respect everything depends on the position of instruction; it should occupy such a position as ever to leave at the centre that which impresses itself on man most profoundly and most certainly." And again: "How defective the presentation of the universe would

be, how little there would be comprised in it of the data of reality, how like a fable it would hover in the airy realm of thought, if we were to omit nature ! ”

Froebel made practical application of nature study over seventy years ago. Yet that is what we have omitted in our education, except in kindergartens, and some of the evil results are due to this failure to make the child acquainted with his environment.

But, then, we have talked about it. Mr. N. MacMurchy, B.A., Elora, read a paper on the subject in 1896, and others have followed since. Motions have been passed concerning it. Finally, agriculture was made obligatory in rural schools and nature study optional in urban schools.

It has always been a problem to me how our city-bred lady teacher makes a success of teaching agriculture. She must, I think, call to her assistance some willing swain from whom she learns perhaps as Whittier's Barefoot Boy learned :

“ Hand in hand with her he walks,  
Heart to heart with her he talks.”

And so she learns agriculture—or at least the emotional features of it.

Agriculture, without a basis in many years of nature study, would tend, I think, to impoverish the once fertile soil of the youthful brain, particularly of the city-bred lady teacher. A succession of crops is essential here, beginning with the sowing of simple facts about such commonplace things as squirrels, trees and stones, and ending or rather developing into, about six years later, a crop of principles, which would find practical application in the every-day work of the farm or garden.

However we are at present considering city schools, whose graduates (except the aforesaid teachers) are not preparing for agricultural pursuits. Why should these children study nature ? Is it necessary to prove its value ? Suppose we arrange the arguments for nature study categorically, leaving each to accept or refute at leisure, and omitting at present a defence of each statement :

(1) It trains the senses ; (2) it arouses interest ; (3) it connects the school with the world ; (4) it prepares for the sciences of botany, zoology, physics and chemistry ; (5) it prepares the pupils for future work (the majority of our pupils will work with iron or wood, or flour or steam) ; (6) it is the basis of nearly every other school study.

This last statement we shall discuss. Write the list of school subjects: Arithmetic, grammar, reading, spelling, writing, drawing, composition, history, geography, literature, physiology, nature study. Now, think of the modes of thought-expression: (1) Gesture, including facial expression, acting, etc.; (2) modelling; (3) drawing, which includes form, color or shading and proportion (number); (4) diagrams; (5) speech, oral or written. Now write opposite each subject of study the modes of thought-expression usually associated with each:

Arithmetic—Speech, oral and written.

Grammar—Diagrams and speech.

Reading—Gesture and speech.

Spelling—Speech.

Writing—Written speech.

Drawing—Drawing.

Composition—Written speech.

History—Speech.

Literature—Speech. (It can and should be associated with all the modes.)

Geography—All the modes.

Physiology — “ “

Nature Study— “ “

Geography is advanced nature study, and physiology is one branch of it. Practically, therefore, nature study should be made the basis of reading, drawing, composition, geography and physiology. In higher classes literature can serve the same function towards these studies, but for all ages nature study is the one subject on which these subjects should be based. Yet we have omitted this subject from our curriculum!

What would literature be without its references to nature? What is history but the study of man in his social conditions, and man is the crowning work of nature! Arithmetic originated in the measure of natural things, and grammar is the study of speech, which is the tool of nature's highest organism. Is nature not at once the source and inspiration of art, music, architecture and sculpture?

What remains, then? Simply action. Ideas can be realized in action, and the only way to solve difficulties is to act according to the light you have, and the way will open up as you advance. This is what we have done in St. Thomas, and we are beginning to see the opening which will lead to more perfect work.

On inspecting the St. Thomas schools for the first time, I was struck by the total absence of any provision for object-lessons, notwithstanding that the limit-table made such lessons a part of the regular school work. One teacher out of forty (a new one, by the way) had a period on her time-table for object-lessons, but was not enthusiastic about teaching a lesson for me. Excellent work was being done in the mechanical subjects, and such subjects as geography and physiology, which should be associated with outside life, were treated in the most mechanical way.

This state of affairs seemed serious. Yet, reflecting on the object-lessons with which I was familiar in the Public Schools, I hesitated to institute any drastic measures to restore them. As a result of reflection, nature study occurred to me as the solution, and a course was immediately outlined for use in the schools. While such a course is absolutely necessary, I would not have you think that I favor limiting a teacher to the particular things named in the course. The names are suggestive and will give a teacher something definite to act upon. Having made a beginning and being in earnest, she will soon become more or less independent of any purely formal course. She will find her pupils bringing in every conceivable kind of object, from "pussy willow to witch hazel"; from tadpoles to spiders' nests; cocoons, larvæ, etc., asking "What is this?" And she will stimulate interest and independent work by saying, "We shall find out." Sometimes it may take a year to find out, and sometimes a few days only. To say "I don't know" is no disgrace, but may be made a great incentive to discovery.

What a paucity of names the general public have for what should be familiar objects, properly distinguished from all others. "Bug" does for anything from butterfly to microbe, and will probably include a tadpole. "Fish" includes everything which lives in water—whale, seal, crayfish, clam. "Worm" does service for all true worms, but in addition is applied to the larvæ of insects, to leeches, and to some of the mollusks and myriapods, *e.g.*, slug, centipede. "Bird" applies to the members of the class "aves," but also takes in bats and moths (humming-birds). "Weed" will be applied to every plant outside the garden, except those which have conspicuous and beautiful flowers. "Root" is anything which grows underground.

All this simply means that the vast majority of people have

their mental development arrested at a stage little beyond the child stage, when everything from cow to elephant is a dog, and every human being a man. This limitation of speech tends to keep development arrested. At any rate there must be mental development before language can be improved. As soon as an object is distinguished from others, its name should be given, but the child's interest must not be allowed to cease with the name.

There were wrong conceptions of the aim of nature study, of course. Some teachers thought that what was wanted was to *inform* the pupils about these objects, whether they ever saw them or not. Such a procedure only adds insult to injury. The child has senses through which it may discover for itself. It is an insult to it to deny this, and an injury to refuse it the opportunity of exercising its senses. The natural result of such a method of dealing with nature would be to disgust the pupils with it. When told that the *mere* learning of facts about nature was of comparatively little value, these teachers could see nothing to be gained in the study. However, we learn by failure; at least we shall not repeat the failure if we are wise.

Another fault of teachers was to generalize too quickly. If the lesson were on the mud turtle, they would spend a few minutes in looking at the specimen, observing its movements, external features, etc., then generalize somewhat as follows: Mud turtles live in water. They make their nests on the bank, and cover up their eggs to be hatched in the sun. Mud turtles grow very slowly, etc.

Instead of this, the observations should be about the particular mud turtle in the room, and such generalizations as the above *can* be made only after several months or years of study. Give the specimen an individual name, and study the individual. Christen your mud turtle, Bill-Walk-up-the-Creek, then write Bill's history—not the history of the class to which it belongs.

Let me say here, however, that nature study should not be limited to things of sense. In the lower classes, Parts I. and II., it should be so limited, but in Second and Third Book classes memory and imagination are active, and a single specimen should then be made the basis of a lesson, in which both these mental activities are brought into play; while in Fourth and Fifth Book classes the things of sense are by no means the important things. Nature study will not then be bounded by one's horizon, but will extend to the whole world. In Second and Third Book classes, pictures, and in Fourth and Fifth classes verbal descriptions of animals

which cannot possibly be observed are quite in place, in fact are of more educational value than the study of objects actually present.

One other point on methods of nature study. Analysis and synthesis should go hand-in-hand in nature study as in any study. The teacher must limit analysis according to the pupil's powers of synthesis. This synthesis is practically thought-expression.

Referring again to the modes of thought-expression, it will be easy to see that in young children very little analysis should be attempted, as the means of synthesis (thought-expression) are limited to gesture, modelling and very imperfect oral speech. As power of expression increases, analysis should become more minute, so that the same natural object should be made a subject of study year after year as the child is able to learn more about it. The old style object-lessons on cork, glass, etc., in which an attempt was made to teach everything about each of these in one lesson, is based on false pedagogical principles.

The greatest incentive to nature-study in our schools has been the starting of a museum in one of the twelve-room schools. The nucleus of this was a collection of seventy or eighty minerals given to each of our two twelve-room schools by the Dominion Geological Department, through the kindness of the late Geo. M. Dawson, Director. When first approached on the subject, he replied that they had never made donations to Public Schools, but after some correspondence he sent two sets in November, 1900. The presence of these suggested to teachers and pupils the supplementing of them by other specimens, and additions from time to time have been made, until there is a respectable beginning of what will doubtless become a representative museum of our common plants, animals and minerals.

A very essential part of such museum is a collection of pictures of animals and of different parts of our Dominion and of the world. We have many colored photographs of birds, in addition to supplying each school in the city with a copy of "Birds and Nature." There is difficulty in securing photographs of Canadian scenes, geographical and historical, because none of our publishing houses have taken up the question systematically. If this Association would express itself on the question, I am satisfied a publishing house would take the matter up.

We are apt to despise the use of pictures in education, while quite ready to use objects and descriptions of objects. It should be borne in mind that pictures are a source of information quite as



legitimate as objects or words. Indeed, at a certain age they are *the* essential means of conveying information. Yet what has been done in our schools in this line? Practically nothing. I am satisfied that a series of pictures illustrating important historical events would put life into history as nothing else could.

The pupils of the above-mentioned school raised money by means of an entertainment to purchase cases and certain specimens for their museum. Of course, anyone is aware that a museum may be abused, just as books, charts, maps, drawing models, etc., may be abused; but a properly equipped museum, if not an essential, is at least a great factor in nature study. It need not contain a specimen of every form of plant and animal life; indeed, if it did, it would probably be of more harm than use. But it should contain the common types, with life-histories of butterflies and moths, and specimens of important animals which are not within reach of the ordinary student.

The museum should contain breeding cages for moths and butterflies, an aquarium for the study of aquatic life, a terrarium for the study of land animals and plants, a cage for such small animals as squirrels, birds and rabbits, which could be kept for a few weeks, then restored to liberty.\* A dead specimen is a poor substitute for the living, and a living specimen, restricted as it is in a cage, is not the same as the free bird or squirrel, yet each has its place in a well-arranged order of study.

I remember the first moth which emerged from its cocoon in this school. Some pupil had found the cocoon of an emperor moth in the fall, and had brought it to the school as a curiosity. It was left in company with the pupa of a tomato sphinx moth, on the blackboard ledge at the side of the room. On my next visit to the room, the teacher inquired as to the nature of these strange structures. The interest manifested by teacher and pupils when they learned that they were living things, was intense. A few weeks later a magnificent emperor moth emerged in the room, and two teachers brought it to me, as interested and excited as children over a new toy. The sphinx moth did not emerge. Since then many cocoons and chrysalides have been brought to school, but few have been so successful as this first one.

Recently I exhibited the chrysalis of an Eastern swallow-tail butterfly to a class of forty entrance pupils, and only five suspected

\* We have not equipped our museum so, but this will be done.

its real nature. Some thought it a foreign product, probably from the tropics. However, this is not surprising, when out of a class of over thirty Model School pupils not more than two or three knew anything about our common insects except that there were such things as flies, mosquitoes and butterflies; and indeed, though graduates in botany from our best High Schools, they could not name at sight our common autumn flowers, excepting asters and golden-rod.

Are these people educated, even though they have a number of hazy ideas in their mind about "African lions, Roman emperors, mountains in the moon, and angels in heaven"? But the tragic sequel will be their attempts to interest our boys and girls in agriculture and nature study, with the inevitable result of memorizing names and generalizations from books, without a notion of their relation to the world about them.

From its inception nature study has been urged as of value, not so much in itself as in its relation to other subjects of study, *e.g.*, composition, geography, reading and drawing, as shown in the preceding comparison between subjects of study and modes of expression.

The effect on geography has been most marked. It has become a living study, but the full effect of nature study will not tell on this subject for some time, as we begin nature study in the primary grades and merge it into geography in the higher. As each child spends about two years in the primary grades, we have not yet had a chance to observe the finished product.

Composition, however, does not require a two years' groundwork. The effects in this subject are immediate and have been most pronounced. Two years ago composition work consisted of such exercises as may be found in Swinton's Language Lessons, in which the teacher does all the thinking and the child is compelled to feed on the husks that might do for swine, but would never make good writers nor develop mind. Nothing seemed to me so lifeless and useless as these exercises. Once in a while they were varied by reproducing stories, but here again the thinking has all been done by the writer of the story.

But this has changed in nearly every case, and I find no difficulty whatever in getting good compositions, written cheerfully and rapidly, on such subjects as "The Story of a Frog," "Maple Keys," "Birds I Have Seen," "Maple Twigs," "A Mud Turtle," "Story of a Butterfly," "How to Build a Bird-Box," "Spring," "The Lilac

Blossom," etc. In classes where composition was never attempted, Part II., I have obtained compositions extending over more than half a foolscap page, and even a whole page. Why shouldn't they write? All they need is thought, and every child thinks. Then let him express himself.

In the primary grades nothing draws out the expression of the little tots like nature study. They will tell about the moon, the snow, the birds, in just as perfect a manner (perfect for a child) as the pupils of higher grades. How immense and overwhelming it must seem to them! But this expression of their rudimentary analysis is their conquest of a little corner of this great universe.

The moon, did you say? Why study objects so far away? Why not stay nearer home? The moon is not far away to the child. It is only to us grown-ups that heaven and the heavenly bodies are far away.

"I remember, I remember  
The fir-trees, tall and high,  
I used to think their giant-tops  
Were close against the sky.  
It was a childish ignorance,  
But now 'tis little joy  
To know I'm farther off from Heaven  
Than when I was a boy."

The beginning of composition is this expression of mental activity, oral, written or by models, etc. Make use of these expressions for reading lessons. The matter is far superior to that contained in our Readers. In fact the former means something; the latter is dead.

With the reading of a few of these compositions, and comments thereon, I shall close, pausing to remark that a two years' experience with nature study has convinced me that all other school subjects are made to mean something by this one. If the curriculum is too crowded with names, then remove physiology, composition, reading, drawing, and put in their place nature study, which includes them all.

#### COURSE IN NATURE STUDY.

##### PARTS I. AND II.

WHOLE YEAR.—Sun, moon and stars—position and appearance.  
Kind of day—cloudy, foggy, wet.

##### *Winter.*

Ice and snow, Jack Frost. Winter birds—English sparrow, chickadee. Trees in winter—compare evergreens and deciduous trees. Winter sports—skating, coasting.

*Spring and Summer.*

Melting of snow and ice ; bursting of buds. Coming of birds—keep a bird calendar recording first appearance of a few common birds. Study what the birds do—sing, build nests. Observe what they eat.

Common flowers as they appear—hepatica, dog's-tooth violet, spring beauty, trilliums, violets—where they grow, color of flower, Plant seeds and observe growth.

Study squirrels, rabbits, etc., if living specimens can be obtained and kept in the schoolhouse for a few days.

*Full Term.*

A few common plants—external features. Fruits and seeds noted—what use are they ? Dissemination of such seeds as burs milkweed, thistle, maple—"children leaving home."

When birds leave—why ? Where do they go ?

Falling of leaves—difference of trees after leaves have fallen.

## SECOND READER.

WHOLE YEAR.—Sun, moon and stars, more minutely. If eclipses occur, observe and explain. Strength of sunbeams at different times of year. Need of sunlight for plants and animals.

*Winter.*

Ice, frost and snow, more fully. Study forms of snowflakes ; frost on window-pane ; expansion of ice. Different forms of water—ice, snow, water, vapor (steam). Convert one to the other. Observe how deeply ice sinks in water ; compare large and small pieces in this respect.

Buds of trees—observe twigs of apple, maple, horse-chestnut, spruce or pine. Find out how the latter shed their leaves. Impress the fact that the trees are alive, but resting.

What do all the birds do in winter ? The bears, coons, squirrels, frogs, butterflies, toads ? (Fall work must precede.)

*Spring and Summer.*

As before, but more minutely. Compare specimens. Continue bird and plant calendars.

Note particularly the habitat of animals and plants.

Keep tadpoles in aquarium in school-room ; observe daily for six weeks or more. Write the life-history of the frog.

Study small species of fish—all external features, how they swim, breathe, etc.

Young mud-turtles may be kept all summer. Keep frogs, toads and mud-turtles till cold weather, and observe them bury themselves, and come out in warm weather.

Collect larvæ of insects from milkweed, parsley or carrots, tomatoes, etc. Breed in terrarium, and note change to chrysalis and to butterfly or moth. Make drawings of each, and finally write the complete history.

#### *Full Term.*

Continue observations on life of butterflies and moths. Collect cocoons and chrysalides, noting date, and discover those which live through the winter.

Migration of birds. Use of birds. Our duty towards them. How to study them without injuring them.

Examine twigs of trees for buds before the leaves fall. Note relation of buds to leaves. Observe the falling of leaves—different modes of falling; relation to frost; falling of fruit. What becomes of the fallen leaves in woods?

Collect common fall plants—evening primrose, toad-flax, asters, golden-rod, gentians. Analyse the head of a wild or a cultivated sunflower to learn the nature of a composite.

Fruits and seeds. Dissemination of seeds. The fruits of the apple, horse-chestnut and maple should be observed throughout the year, and mode of development noted.

Collect flowers mentioned in Second Reader.

Forms in which plants store up food and propagate next season—bulbs, root-stocks, tuber, corn. Distinction of stem and root.

#### THIRD CLASS.

Motions of sun, moon and earth. Morning and evening stars. Study features of the heavens, noting common constellations. North star. Position of sun at different seasons—effect.

#### *Winter.*

As before, passing to consideration of glaciers, icebergs, avalanches, arctic weather. Expansion of water when freezing; its effect on soil, rock, etc. Origin of rivers; glacial action.

Study structure of stems, buds, shapes of trees, mode of branching, nests in trees.

Winter condition of former animals, also of flies, mosquitoes, crayfish, snails, spiders. Cocoons and chrysalides kept through winter.

Collect seeds in fall and dry fruits for study in winter.

*Spring and Summer.*

Collect and preserve ten or a dozen plants. Group plants according to habitat. Compare plants and find likenesses and differences. Study leaves, particularly of trees. Study bark, wood, and general appearance of common forest trees—use and relation to soil. Extent of forests in Canada, present and past. Secure branches of black and white spruce, and consider pulpwood industry in Canada. Preservation of forests.

Birds and animals as before, more in detail. Study whitefish, herring, perch. Learn to recognize common large butterflies and moths, their larvæ, cocoons, etc. Injurious insects, codling moth, etc.—how to destroy.

Life history (from observation only) of fly, butterfly, mosquito, dragon-fly, cicada, grasshopper, coddling-moth, potato beetle (select one or two of these for the season's study).

*Fall.*

Cones of evergreens and other fruits (catalpa, etc.) Plants—especially composites—detailed study of two or three as outlined, except that flower need not be analyzed fully.

Relation of plants to insects, to rainfall.

Crayfish, spiders, ants, bees, wasps, snails, slugs, clam (select two or three for a season—one of these may be as much as you have time for). Special adaptations of these animals to mode of life.

Compare bean and wheat (or corn) as types of plant-classes. Improvement of species by grafting, selecting seed, crossing, etc.

## FOURTH CLASS.

Sun, moon, earth and stars more particularly studied, as required in geography.

Inquire into relations of cause and effect.

*Winter.*

Summarize knowledge under headings: "Our Winter Birds;" "The Sleep of Plants;" "Hibernation of Animals;" "How Plants Shed their Leaves."

Simple experiments, physical and chemical, on air, water, carbon dioxide gas, heat.

Physiology of human body.

*Spring and Summer.*

Study several plants fully, and prepare a rudimentary key as preparation for using complex botanical keys. Special study of injurious plants—how destroyed. Diseases of plants, *e.g.*, rust, smut, black knot, scab—remedies for these.

Fungi, mosses, lichens, ferns—in the large. Poisonous plants—poison ivy, water parsnip.

Summarize knowledge under heads: "How Insects Benefit Plants;" "Cross-Fertilization;" "Movement of Plants;" "Plant Enemies."

Animals—classify animals into branches, and vertebrates into classes, studying fully a type of each.

Study smaller forms of animal life: Plant-lice, buffalo carpet beetle, clothes moth, caddice-fly, wood-louse, cyclops.

Make an extended study of one class of animal life—birds, fish, reptiles, butterflies, moths or spiders, according to conditions.

Summarize as under plants. Relation of animals to man. Economic importance of study.

When a type has become familiar, learn about related types from authentic sources, using illustrations and descriptions.

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THE SCHOOL IN THE STATE AND THE STATE IN THE  
SCHOOL.

D. D. MOSHIER, B.A., B.PÆD., SARNIA.

The school and the nation are intimately related and mutually dependent. Sometimes that relationship has been fully acknowledged, sometimes ignored, but more frequently, perhaps, admitted in such a way as to give a faint suggestion of the fable of "The Belly and the Limbs." It is to be hoped that in the sequel all the *faintness* in the suggestion of similarity will have disappeared completely and the mutual dependence be fully acknowledged.

There are at least two views prevailing in regard to the function of the school. These may be termed individualistic and national. The extremists in each of these parties stand in the way of rapid progress. This is particularly true in regard to the first class. These are the men whose interest in school work is limited to that portion of their lives during which they have children attending school. During their remaining years, unfortunately, they do their best to keep down expenditure in school work to the lowest possible point, too often at the sacrifice of efficiency. The presence of such men, however, is not a source of danger to any great extent for in time they are certain to constitute a very small minority, so potent is the moulding power of education.

The extremists, on the other side, would be much more dangerous were they as numerous. These are the faddists. We are willing to acknowledge our debt to them, but at the same time their bills must be discounted—some of them quite heavily. They occasionally come to the Ontario Educational Association, which serves as a safety valve. I must leave you to discover them without my aid, lest—but the punishments I fear must also be unnamed if I would leave you alone in your search.

I shall not here attempt to point out the quantitative value of the educational factor in national development further than to assert, what someone else may undertake to show, that if the sum total of national life be represented by the product of  $n(n-1)(n-2)(n-3)$ , etc., to  $n$  terms, then  $n$  may fairly be taken to represent the value of education to the nation. You will notice that as  $n$  increases not only is the product increased, but each of



the other factors are increased and new ones introduced. Few will deny that similarly, in proportion as knowledge extends and increases, national greatness advances and progress is made in all the departments of national life.

Hence the right of the State to shape and control its educational system. This is not only a right but a duty. Thus far we have gone. Our Province has asserted its right to shape and control its educational system and undertaken to perform that duty. In the practical working out of our system, however, there seems to be one thing scarcely consistent with the theory that national progress is dependent upon and commensurate with the character of national education.

The State has erred in removing as far from the central authority as possible the burden of maintenance, and practically making it individualistic. It should be national. A national system of education, with the best possible course of instruction for its youth, will always be materially weakened in its results when hampered as ours is by dependence upon local provision for financial outlay. If each educational unit (the section) took the liberal view of the situation that the best ones now take, all would be well, but that is a condition of things we cannot hope to see.

In the ideal national system of education, not only the course of instruction in Public Schools, but also the expenditure should be uniform for the nation to secure the best results. Local authorities should provide and equip the buildings, etc., and engage and control the teachers as now, but the unit in regard to finance should at least be the municipality in so far as the payment of salaries to teachers is concerned. Government grants would then be made in all cases directly to the municipality, and conditional upon a minimum average salary. Under such a system the cheap but inefficient teacher would be under the necessity of going abroad or seeking another calling.

To secure the best results for the nation the greatest possible care should be taken in the selection and training of teachers. The entrance to the teaching profession should be carefully guarded; even the approaches to the entrance should receive attention. Granted that the school is the greatest factor in national development, it follows that those to whom the work of education is entrusted should be selected and trained with the greatest possible care.

It is universally admitted that the individuality of the strong

teacher is the greatest thing in educational work. So true is this, that given the right stamp of masters in the schools, with reasonable liberty and under a system otherwise defective, they will give to the nation that which is essential to all true and permanent national progress—manhood, pure, vigorous, persistent, careful and far-seeing. It is because of the individuality of the Scottish dominie that the old schools of Scotland are held in such honor to-day. But there was a system of selection there not made by man. Only those capable of becoming masters of environment or circumstance survived. This alone constitutes manhood. And of such were the masters of the schools—tried *men*, not youths or maidens.

But we are in other days. Man must often aid nature to make the unwilling soil fruitful. So, too, it may often be necessary to supplement the ordinary forces operating in the various departments of human activity to accomplish the survival of the fittest. But prevention may, even should, be exercised. Prevention, not merely suggestive or impedimentary as nature's is, but absolute.

We begin to train our teachers in our Model Schools, but when do we begin to select them? There is nothing done along this line except through the individual efforts of teachers or inspectors. The work of selection should begin in the primary and be continued through the secondary schools. Boards of Examiners should from time to time be informed of the character of the prospective teacher's daily work, at least during the whole High School course. The whole non-professional course should, as far as possible, be an auxiliary to that of the Model School, into which no candidate should be admitted whose demeanor and habits had been unsatisfactory to the teachers in the High School, or whose daily work had been lacking in evidences of thoroughness and care.

At present, too, we train our teachers as though we expected them to occupy positions in graded schools only. Many of our young teachers have their first experience in rural school work when they enter it as teacher. It should be otherwise.

In view, further, of the value of permanence of interest in a given work, it would seem to be the duty of the State to remove as far as possible those features in our educational system which now induce so many to become teachers for a short time. It will probably be conceded that the teaching profession is of more value to the State than any other, yet into those which are of lesser value than ours none can enter until of age. There should be no minors

in charge of our schools. This would give time for more thorough preparation and training, which is very desirable. Coupled with this should be an extension of the duration of the lowest grade of certificate.

The subjects of instruction should also be prescribed by the State. This need not interfere with the individuality of the teacher. Not what he teaches, but how ; not the thing taught, but the man, is the greatest force in the school. Nevertheless, what is taught counts for much. Occasionally one hears a sigh of regret over the present practical tendency in the subject-matter of instruction. If I mistake not, I have heard a moan or two from the rearguard during this Convention. That man is a poor student of the Classics who has not discovered that the greatest thing in Greece and Rome was practical men. Someone sneeringly said the other day, not however from the platform, that the Indian had taken up Nature Study long before us, and what had it done for him ? Well, some of us know that Indian boys and girls can easily be made to do better work than white children in penmanship and drawing. Is this not due to the fact that for ages their forefathers trained both eye and hand ?

It is the duty of the State to see that our schools do all that is possible to make practical men and women of our boys and girls. And here our Education Department, if I mistake not, stands between two fires. On one side are influential men—I mean influential in educational matters—advocating the earlier introduction of the Classics in our schools. These view the question from a University standpoint, and that should be a good one. It is a good one. They wish the nation to be filled with University-trained men. May we live to see that day. But these gentlemen, eminent and worthy of respect as they are, err in this instance. We need not Latin in our Public Schools so much as we need less of it in University work. Would a University degree in keeping with the spirit of the times be out of place ? Let us have an end of the mockery of a pass course in Latin for one year, with its culture value of zero rather than a return to the Classics in our Public Schools.

On the other hand is the great majority of all inspectors, High and Public School teachers, and the people as a whole. Here is an opportunity for our Minister of Education to exert his influence in accord with the spirit of the times, and, if I mistake not, he will.

Lastly, the State looks to the school for the development of a healthy spirit of patriotism among our people.

There is a spirit called patriotic which is not desirable. We will not need to go far abroad to find it. If I mistake not, our American friends have succeeded in developing, through their schools, a spirit of pride in their own greatness, coupled with that of hatred towards England.

The American lad who, on seeing Brock's cenotaph, fairly hissed in my hearing, "Wouldn't I liked to have a crack at him," exhibited a spirit no national system should try to foster. On another occasion, an American boy belonging to a home of culture, told me he thought the emblem of the American nation should never have been the eagle. It should, in his opinion, have been the elephant, because this animal never forgave an injury. And this came from a boy whose countenance and general bearing indicated the possession of a spirit towards all he met the very opposite to that he was wishing to have perpetuated in the emblem of his nation.

The seed of devotion to a party or a nation bears nowhere such abundant fruit as when planted in the virgin soil of childhood.

Let the schools of the Empire but do their duty, and in a decade or two from now the term "colony" shall have begun to pass into history, and there will be no two views as to the future relationship between the central and the most remote parts of our Empire but it and they, as we already do, will feel themselves as integral parts of one world-wide empire whose sons have found a better way to develop a truly patriotic spirit than by keeping in view something to irritate them against their elders who, with greater disadvantages, have climbed a longer and more arduous way.

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*PRESIDENT'S ADDRESS.*

JOHN A. LEITCH, BRANTFORD.

GENTLEMEN,—Through your grace and kindness it becomes my pleasant duty, and I esteem it an honor as well as a privilege, to preside over the deliberations of the Trustees' Department in connection with the Ontario Educational Association, where we all meet on a common platform, animated by a common enthusiasm, inspired by one lofty purpose and devoted to a single aim, namely, the education of the youth of our land.

The bill of fare which we have before us for this Session is a very important one and requires our most careful consideration. The discussion on the subject of "The Whole Bible as a Text-Book in our Public Schools" will, no doubt, give rise to a variety of opinions, but I have no fears but that a fair and impartial discussion will be of benefit in confirming previous opinions as well as in widening and broadening our views on a subject about which there must always be a difference of opinion. However, every precaution should be taken so as to prevent the schools of the people from becoming nurseries of theological strife. The true aim of education is to develop character in the right direction. A well-rounded character embraces in it all that goes to form perfect manhood and womanhood. The true teacher, by precept and example is successfully, though unconsciously, teaching to the child those principles of morals and ethics which, if taught from a prescribed text-book, from the nature of such subjective teaching, must fail in its purpose. To make the whole Bible a text-book would I fear result in a conflict of opinions so diverse as are the various human instruments through whom it is taught. Far more effective in my opinion is the example set. The child naturally copies after the type. How intuitively he acquires a knowledge of the character and qualities of the teacher! You may

hide your name and all your past history from the average child as far as he needs to know, yet your qualities of mind and heart are indelibly traced in your whole outline and transparently open to his view. The youth can discern character with far greater precision than at any other period of his life.

Our rural schools need improvement. It is a serious reflection on former training that they should be so defective. The foolish fear of increased taxation hinders the engagement of specially qualified teachers. What vain folly, even from a utilitarian point of view, to engage a cheap teacher with a view to keeping down the taxation!

It should be a principle in the breast of even every bachelor and childless home in a community to maintain a school which would effectually equip intellectually and morally all the youth in the section. In self defence and for the moral welfare of the community, if for nothing else, there should be placed at the disposal of every youth, as near home as possible, all that is essential to make him intelligent and moral in his conduct. If we wish to have a safe superstructure we must look well to the foundation. The public school is the starting point as well as the final for the large majority of our country's youth. With a few exceptions its course and standing seldom rise above the High School entrance examination and hence the necessity of sending to some High School boys and girls yet in their early teens to grapple with a little Latin or probably some other abstract study as foreign to the natural bent of their young minds as anything can possibly be. In these schools they come into contact with influences that are anything but salutary, and while they may and do learn, they are only doing what they should have facilities for accomplishing in their own school at home. As a remedy I would have the Public Schools in the country placed on such a footing as to provide a good practical education in all that is essential for everyday life. To this end a larger share of the public funds should go towards equipping the schools with the best possible outfit both in appliances as well as the standing of the teacher in charge. Higher education at present receives too great a share of the country's money—not that it gets too much, but that the other does not get enough.

The curriculum having in view the preparing for all the professions alike does not discriminate enough in favor of such as have in view exclusively the profession of a teacher. He who aims at any of the professions up to a certain point runs along the same

line of study with the young man who may have mapped out his course with a view to be permanently a teacher of youth. The consequence is that in too many cases all alike aim finally to become fully fledged in law or medicine or some other calling that promises greater returns. The Public School is consequently left at the mercy of young boys and girls who are trying to teach as they have seen someone else do without that experience that comes only from years of service.

I do not wish to be understood as being limited in my ideas of what constitutes all that is essential in education. If it were possible I would have all education of the higher type and be made so universal as to be within the reach of all. There are those who attain to a high standing in education independent of High School or university training. Their doing so will to a great extent depend upon the influences brought to bear upon them in the Public School. Hence, I would say make the Public School leaving examination the standard for entrance to the High School. Provide in addition, in the country schools particularly, facilities to any of the young men or women of the section to attend school during the winter months and follow up some special line for which they may have a liking without being compelled to take a course in some little side-show, such as drawing, etc. Make the position of the Public School teacher such as will attract to it those who are specially fitted for the work. Raise it to the rank of a profession, permanent and well paid. The returns cannot be estimated in dollars and cents, but in the more lasting and creditable form of intelligence and moral worth which will to a great extent do away with the necessity of jails and places of punishment. Crime is the outcome of ignorance and a consequent low standard of morals. Instead of requiring such an enormous share of the country's wealth to keep in office such as administer the laws and punish crime let our schools be such as to reduce the possibility of crime to a minimum. Begin with the boy and girl young. Place them in charge of such only as are fitted and destined by nature to form in them such habits as are calculated to make them true men and women regardless of the petty cost. Our High Schools are doing a noble work, but it is only for the few. They are monopolizing a large share of our money at the expense of the half-starved and feeble Public School which should be the most efficient and best supported institution in the land.

I can only touch upon the subjects in the merest outline. They

are all suggestive and will be introduced by men who are eminently fitted for the task. Our school system, although regarded as good, must continue to evolve if it keeps pace with the requirements of the age. Stagnation means decay. When any system is regarded as having arrived at perfection its decline and final decay must evidently follow as the ultimate result. Motion is one of the necessary laws of nature. There is nothing in the universe absolutely at rest. To our finite minds nothing can be acquired in the way of advancement only by way of experience. There was a time when written examinations were given a prominence which a ripened experience now almost condemns. The school of the future will be an improvement upon that of the present just in proportion to the wise judgment brought to bear on its requirements. It is all very well to say that teaching, in order to be a success, must be a labor of love; but there must be an inducement held out in proper compensation before the calling is entered permanently by the best minds, moral and mental, that the country produces.

I have only touched briefly on some of the headlines of the programme before us.

And now, gentlemen, in conclusion, I desire to thank you most cordially for the honor which you have conferred upon me in unanimously electing me as your President. I congratulate you upon the important services rendered by this Department in the interests of education generally, and confidently look to you for that courtesy and assistance which you have always given my predecessors, and upon which, in my weakness, on this occasion I depend so much for the success of these sessions to which I cordially welcome you, and declare the same now open for business.



*HOW TO KEEP OUR SCHOOLS PROGRESSIVE.*

J. C. ROGERS, B.A., HAWKESBURY.

My subject had been chosen before I knew it was to serve as an introduction to a certain topic, viz.: "The advisability of lengthening the term of the Model and Normal Schools to one year." There is, however, a connection between the two, because what is aimed at in giving a longer term is greater efficiency, *i.e.*, keeping our schools *progressive*.

In Dr. Tilley's report regarding Model Schools, I find the expression, "The Teacher is the School." All authorities on education endorse that statement. This does not mean that good trustees, inspectors, equipment, etc., count for nothing; far from it, but it does mean that they are all subordinate to the teacher, in the highest sense, *i.e.*, the chief reason for their existence is to cause him to reach his greatest efficiency.

If, then, the good teacher makes the good school, it is quite pertinent to the question to inquire briefly what sort of a man he should be.

Just here, Mr. Chairman, it may be objected that I should say *she* instead of *he*, as ladies compose the greater portion of our teachers. Our neighbors to the south nearly always speak of teachers as if they were all women, but my own belief is that as parents are of both sexes, family training is given (or should be) by both sexes, so educational training should be given by both sexes. Hence, sir, if for nothing more than a protest, I ask to be allowed to use the masculine pronoun.

The teacher we want, is sound physically, well-trained, both as to hand and head and is both able and willing to exemplify high ideals of character to his pupils. He is patriotic, but no jingo, has clear views of what sort of citizens our children ought to become, believes that fathers and mothers have even to-day a few duties to fulfil in the training of their own offspring, and is at least twenty-one years old before he is put in full charge of a school.

It may be said that we cannot find such teachers. Well, it is at least our duty to make careful search, and get such as come nearest the above standard.

The three most important things for our schools are :

(a) To *get* good teachers.

(b) To *keep* them.

(c) To keep them *progressive*.

I believe that we need an educational standard for teachers even higher than we have at present. Manual Training and Nature Study have come to stay. Longer terms are required at both Model and Normal Schools. Twice this Department has affirmed its belief in the advisability of teachers being at least twenty-one years of age before beginning to teach.

All this means making the profession harder to enter, and it will certainly reduce the number of teachers so much that the supply will not equal the demand, unless greater inducements can be offered to those thinking of becoming teachers; that is, we shall not be able to *get* the good teachers. Even now I am told that demand has surpassed supply in a number of counties.

### TO GET THE GOOD TEACHERS.

1. A term of teaching longer than at present should be allowed to those who have completed the Model School course. This will be especially necessary if terms are lengthened in the Model School. I should be inclined to say, allow four or five years, with an extra year as a reward for special excellence.

2. Successful candidates might be placed in lists according to standing, and be guaranteed situations in their turn when vacancies occurred. This plan works well in large cities and could be applied to rural districts if schools were consolidated, or if salaries were equalized by township boards. Under present conditions it could hardly succeed outside of urban centres.

3. In some way salaries *must* be increased, especially in rural schools. A short course at a Business College leads quickly to salaries far in advance of those obtained in teaching. Business College principals know this so well, that they are getting scores of our very brightest teachers every year by constantly mentioning in their advertisements examples of teachers who have doubled or trebled their incomes in a few months after taking a business course. If we *do not give the salary* we cannot get and hold the teachers we want. (A glance at the advertising pages of any late issue of *The Canadian Teacher* will prove what I have just said about Business Colleges.) The consolidation of schools would help matters a great deal, and even under present conditions schools might be graded into classes, the best schools engaging only teachers of the highest grade, and receiving an extra grant.

4. Up to a certain maximum there should be a regular increase in the teacher's salary, based upon grade of certificate, length of

service and efficiency of work. What young man wishes to enter a line of business where the chance of rising is so small that he must find fresh employers every few months, in order to get any rise in salary ?

5. Within certain limits, the teacher should be allowed more freedom in arranging the course of study for his school. Frequent interference by trustees or examinations has much the same effect as digging up a seed every day or two, to see whether it has sprouted. With all due deference to our worthy president, I should be very sorry to see his scheme of promotion examinations in force throughout the Province. Let teachers decide on their own promotions, and if they have not firmness enough to do the right thing regardless of parents, let trustees supply them with a good strip of backbone.

6. Occasional leave of absence should be granted to the teacher, for the purpose of visiting good schools in the vicinity. Only by comparison with what others are doing can we judge properly of our own work. The inspector could arrange details, note visits, etc.

7. The good teacher, especially in the rural districts, must have greater security of tenure. Consolidation of schools tends in this direction ; a greater scarcity of teachers and raising the age limit, would help somewhat.

8. Possibly a bonus might be offered, as is being done now with the members of the Manual Training Class in Ottawa.

#### TO KEEP THE GOOD TEACHERS.

Points 4 to 7 mentioned above, present some of the best means found, so far. Other things proved of value in the past are, residences for teachers, provision for superannuation, and all efforts to give the teacher a social status equal to that of other professional men.

#### TO KEEP TEACHERS PROGRESSIVE.

Points 4, 5 and 6 above bear strongly on the subject. Trustees can do a good deal by keeping buildings, equipment, etc., up to date, and especially by showing the teacher that they appreciate his efforts. Why should we reserve all our commendation till he has handed in his resignation ? A good deal more might be done by way of Departmental recognition of the teacher's efforts to keep in touch with the best educational thought, such as reading certain standard works or pursuing summer courses in connection with

some college. Possibly, as in France, badges of honor might be given for special excellence through a term of years. But, after all, the first requisite is to get teachers who have learned to conquer obstacles and to work for the joy there is in making progress. That means, among other things, that Trustees about to engage a teacher, should pay far more attention than they do now to his career while he was a student. Brilliancy cannot take the place of earnestness, perseverance and high ideals.

I had intended to speak of the great power the inspector can wield in keeping schools progressive, but I must not make my paper too long, so I shall close by speaking more directly on the subject of lengthening the term at the Model and Normal Schools.

Those who wish to see this subject dealt with at length, should read the very instructive article by Inspector Tilley, in Part II of the Report of the Minister of Education. Some reasons for lengthening the term are :—To prevent anyone from teaching without a fair apprenticeship; to cause teachers in training to reach the age of twenty-one in obtaining higher qualifications; to weed out the unfit; to review subjects of study from a teacher's standpoint; to get a clearer idea of the ideals to be aimed at by a teacher; and to enable the Department to put at the head of each Model School a man who will be able to devote his whole time to the teachers-in-training. This point I consider most vital. We need for Model School principals men with broad outlook, and in touch with the whole educational system. They should be experienced in both Public and High School work, and if possible, should be University graduates. We must not have narrow men to train our teachers.

But lengthening the term means heavier expenses and longer preparation, and hence, as I said above, *fewer teachers*. The demand is already dangerously close to the supply, especially in the northern part of the Province. To meet conditions of scarcity we may lessen the number of schools by consolidation, lengthen the term of teaching allowed to Model School graduates or supply extra inducements for teachers to enter the profession, such as I have mentioned above. Certain difficulties will always crop up in working out plans for educational advance; let us, as a Department, be ready to do our part in overcoming them.

*THE USE AND ABUSE OF EXAMINATIONS.*

DR. JOHN NOBLE, TORONTO.

Examinations should be used as a means to an end, as one of the most important factors in giving an education to any person, but only a factor. When examinations become the goal, the aim, the great object, the Alpha, the Omega of the teacher and the taught, then they become, as they have become in Ontario, the bane of an educational system. This bane has been ruining education for the past twenty-five or thirty years, nowhere worse, nowhere as bad, in so far as I know, as in Ontario. The evil began in 1876, when High Schools and Collegiate Institutes were actually paid by the Government according to the number of pupils they could cram through the examinations. This was called payment by results, and educationists actually believed that these results were an education. But the fad, like all other fads, when given rope enough, will hang itself. The trend of thought has set in in the opposite direction, the two currents have met, confusion is the inevitable result, and we in Ontario are in the midst of that confusion to-day.

It seems to me that in nothing does the pendulum swing so far from one extreme to another as in educational matters. Because some educators have seen the evils of the abuse of examinations, they now actually advocate that there shall be no examinations at all. But these are few. Examinations, in my opinion, should be held frequently during the school term, on every subject taught. But these should be for the purpose of teaching the subject, and also for the practice that the pupils may receive in neatness, cleanliness, penmanship and composition, and these latter should be considered by the teacher in valuing the answers. If this were so there would be much better writing in our schools than at present. Each teacher should be allowed to hold these examinations as frequently, or as seldom, as she may deem expedient. A record of the results should be kept by the teacher, and this would aid her in selecting pupils for promotion at the end of the term. Thus teachers might hold final examinations with the same end in view; but if an outsider is to examine the pupils, the examinations should be both written and oral, and even then no pupil should be promoted or rejected without the opinion of his or her teacher.

I think it would be better to have pupils promoted from one room to another in the Public Schools, or from the Public Schools to the High Schools, entirely on the opinion of their teachers, than at present entirely on the results of a written examination, but why not both?

We examine a pupil to ascertain how much he knows, but in the first place it is more important to find out how much he does not know. Every teacher or instructor, on taking charge of a pupil or class, should in the first instance, by means of examination, both oral and written, find out what that pupil or class knows, or what they do not know, if the latter be possible. For, as you all know, the first axiom in giving instruction is to proceed from the known to the unknown, and each instructor must begin where the pupil's knowledge ends, not where the curriculum says they should begin.

Examinations may be used as a means of instruction and education to stimulate pupils to search for knowledge and to attain knowledge by means of their own reasoning power.

Examinations are useful as a means of teaching composition, having them express their ideas in their own language; and the most powerful, and therefore the most dangerous of all the uses of examinations is the stimulus they give to both teachers and pupils. Stimulants are good when the heart is weak, and the patient sick and low, but stimulants are a curse to healthy persons, as you will doubtless all agree, being like myself, temperance men.

A century ago, if a boy did not know his lesson, he received corporal punishment as a matter of course, and the result was after one or two experiences he knew his lesson. Corporal punishment is another good thing gone wrong. It was abused, and because it was abused, educators looked around for another means of compelling lazy boys and girls to work. The prize was thought of; prizes became a hobby. The Education Department of Ontario added fifty per cent. to any money sent in by local Boards of Education, and shipped out thousands of books throughout the Province.

The prize was held up to the children as a fond mother holds a five-cent piece to her sick little one, saying, "Take your medicine and you will get this money." Thus education was made a bitter pill that had to be taken before the golden prize was reached. The final day of term came, the bright boy or girl with plenty of brain power, and perhaps weak in body, as we too frequently find this combination, was unduly stimulated, and won the prize, at the

expense always to some extent, of his or her physical welfare. Forty-nine others in the class may have worked as hard as she, but because the Lord did not give them as much brains, or they were not as old as she, or their brain power was not yet developed, or they could not attend school as regularly, these forty-nine were steeped in gloom and disgrace, their parents' hearts were sad, and many a bitter tear was shed. The only one who really came off safe was the one known as the dunce. He did not try for the prize, he knew it was useless for him to do so, therefore he had no tears of grief or joy to shed. This evil went on for many years, is going on yet in some benighted districts. Some two years ago the Toronto Public School Board had the scales removed from their eyes, and all prize giving was abolished.

All right; corporal punishment was bad, prizes were bad, boys were still lazy. How are you going to get the work out of them? Give an examination. "Now, boys, pass the examination, and you will be educated gentlemen, you will know it all."

Another use of the examination is to determine what pupils to promote to the next highest room. I do not say, "fit for promotion." It is not the duty of the examiner (whether that examiner be the teacher of the class, the teacher above the class, or the principal) to determine what pupil is fit for promotion. The examiner's duty is merely to determine the relative fitness; ten or twenty pupils in the class are more fit for promotion than the remainder. I want to say right here that there is a wrong idea abroad, in my opinion, about fitness for promotion.

In the graded schools, a certain number of pupils must be promoted, fit or not fit, and the object is to find out by examination or otherwise, the proper pupils to make up that certain number. Each teacher should commence with her class just where the teacher below left off, no matter whether it is third book work, second book work, or first book work. Why should pupils be taught long division, for instance, in arithmetic, when they do not know how to subtract or add?

Teachers are engaged by the year to teach whatever they should teach, not what the curriculum says they should teach.

Educators, and especially those in authority in our Education Department, seem to take it for granted that all pupils, all schools, all localities, all brain powers are the same according to age; therefore they have arbitrarily divided up our list of studies into five portions. Why did they not say six, or ten, or sixteen, or twenty?

why five? I do not know, but the fact remains, we have five forms, and we have had five forms for many generations; and therefore some teachers, otherwise sane and very intelligent, seem to think because there is no room, that therefore they must take up the work of that form whether it suits them or not.

Second book teachers seem to think it would be sacrilegious if they taught anything but second book work, and all the other grades of teachers seem to have got his unreasonable and very pernicious idea into their heads.

No two pupils in a class are exactly the same, no two classes are exactly the same. For instance, a third book class in a twenty-roomed school cannot be the same as a third book class in a four-roomed school. Then why have the same examinations? I have said and I wish to repeat it, that a certain number of pupils must be promoted in graded schools, from each class into the next class above. This being the case, and it goes without saying that it is the case, the only object is to find out which pupils to promote. Because the pupil who is best up in his work according to a set written examination, will very frequently not do nearly as well as some other pupil who is many marks behind him, but who has plodding qualities and determination that will carry him through far ahead of the one who beat him out of sight at the examination.

Again, examinations are to some extent merely a matter of luck. Two pupils might write on a subject to-day. "A" will succeed, and "B" fail. They might write on the same subject to-morrow with just as fair a paper, and the reverse would happen—"B" would succeed and "A" fail.

Another great evil of examinations is the temptation for pupils to become dishonest. Yes, and teachers too. For I will hold, and every teacher should exert her utmost endeavor to impress it upon the minds of the pupils, that he or she who glowers over the shoulder of another and steals an answer, is just as much a thief as the one who steals an article from a bargain counter, and the teacher and the pupil who prepare for an examination are dishonest, they are cheating themselves.

Again, teachers grumble because pupils are sent up from the next class below, and do not know their work properly; that is according to the curriculum. Confound the curriculum; I'd burn it. That's true, and why should it not be true? No two persons on the earth are exactly the same; no two teachers in the school are exactly the same, nor have they exactly the same powers. One teacher has



the power to get the pupils over the work, so that they can pass into the class above. Another teacher has not the power to the same extent, but she has the other powers far greater, far more important, and much more to be desired in a teacher.

The instruction that a teacher gives to her pupils can be measured at an examination, but the moral effect she has on them can not be measured. The etiquette, the refining influence that she may have upon them, can not be estimated. Yet we have trustees whose brains are softened, and their hearts hardened by good intentions emanating from a narrow mind, who advocate paying teachers according to the number of pupils they can pass through an examination.

The great usefulness of an education is the broadening of the human mind, making it capable not only of intelligently discussing or judging of a great many subjects, but to be able to look on these subjects from different standpoints.

The examination has a narrowing effect, I mean when the examination is the only thing we have in view. The pupil is not given any side-lights on his subjects, there are no stories told him about it to fix it on his memory, to fire his imagination. Oh no, nothing like that, it does not pay, it is not in the examination, it is not in the bond; the pound of flesh, nothing more. Pass, pass, pass.

The great evil of working for the examination is that a certain amount of work specified must be gone over in a certain time. Thus the teacher's energy is concentrated on the effort to store a certain number of facts in the pupil's mind in such a way that they will remain fixed there until after the examination; and I am sorry to say that last year a certain number of my colleagues on the Board actually planned that so much work should be gone over in each quarter or month, I forget which. I have no language strong enough to condemn this idea. I feel like Mark Twain's Deacon, who said he would have to resign his Deaconship in order to express himself in appropriate language.

Why, even a contractor would not bind his men to dig so many feet of a ditch each day, because he would understand that a part might be gravel and part might be sand. There might be some shadow of an excuse for some trustees who have no practical experience in educational matters. But for any person who pretends for one moment to be a professional educationist, to sanction such a thing, or even allow it to pass without his strong condemnation, is to disgrace himself with the profession for all time to come.

No doubt there are some trustees here before me who believe that we should have uniform promotion examinations. Why is that belief rooted in your minds? I believe that the reason is that you say the teacher can get more work out of her pupils if she holds up the examination to their terrified gaze. A certain poet has said that "The fear of hell is a hangman's whip to hold the wretch in order." The fear of examinations is certainly no better. The teacher who cannot compel, inspire and warm up the pupils to take in an education for education's sake, (or if they cannot understand that) simply because they are told to do so, I say the teacher who cannot do that should get out of the profession.

Examinations, or the fear of them rather, make pupils hate education, and make them beg of their parents to let them quit school at as early a date as possible, disgusted not only with school work, but with everything pertaining to book education. Instead of being filled with a zeal to pursue their studies after leaving school, they are filled with hatred and disgust, and seek excitement in other and often evil directions. For, after all, the instruction, information and education which pupils receive in school is merely putting tools in their hands by which they can carry on and complete their true education when they go out into the world and begin to fight the world's battles.

The uniform examination causes the teacher to resort to that most pernicious of all practices—cramming. Why does she do so? She has got to do so or fall behind in the race, for the teacher who crams her pupils for an examination will pass far more than the true educator who pays no attention to the examinations, but looks after the mental, moral and physical welfare of her class.

I am told that in certain rural districts, with real old Rip Van Winkle trustees, that a teacher is re-engaged or dismissed, or has her salary raised or lowered, according to the number of pupils she can pass.

How is cramming done? The teacher at the commencement of the term selects a certain number of pupils, the brainiest and furthest advanced in the class. She gives the greater part of her energy to these; the remainder of the class are let jog along; they will do for next term. Thus the very pupils who should have most of the teacher's attention get least of it.

A word about grading. An ideal grade would be one pupil for each teacher. That is impossible. The next best arrangement is to have all pupils under a teacher as nearly equal as possible in the

amount of knowledge they possess; and the nearer they are to being equal in this respect, the better for both pupils and teachers. In other words, the finer the grading the better.

Should there be an Entrance Examination? I think there should. But it should be oral as well as written; and each pupil should take up to the examination with him his teacher's sealed opinion of him, and that should count together with the oral and written.

The examination craze of the last thirty years has robbed Canada of its population, and kept it poor and struggling, while the United States has been correspondingly enriched. I believe there are more native born Canadians in the United States to-day than there are native born Canadians in Canada. And why? Because they are driven out of Canada by the examination craze.

In Public Schools the whole aim of the teacher has been to prepare pupils for the Entrance, give all her energies to five per cent., and neglect the other ninety-five per cent. to a certain extent.

Now, when a boy or girl passes the Entrance, they are no longer of any use in the Public Schools. The first symptom of the swelled head sets in. They begin to think they are better than those who did not pass; the Public Schools are not big enough for them. They leave school altogether or go into the High School, and here again passing an examination is dangled at the far end of the course. They work not for the love of an education, and they do not get an education; they simply get up the work, and then they pass. More swelled head.

If a boy, a farmer's son, he now begins to think himself too superior to work with coarse clothes on, and an aching back, and a sunburned face. No, he is going to be a gentleman. If a girl, she will not drudge at home and cook, and spoil her complexion over a hot stove, and play Delsarte on a washboard. Not she. She is looking up; she is going to be a school teacher. The hours are short, the holidays are many, and it is respectable, it is "tony," and the large salary she gets enables her to dress well and move in nice society. In the country she can get two hundred and a quarter to start with. But the salary does not deter any of them. They are preparing by the hundreds and thousands every year.

Our Government seems to have the craze for grinding out school teachers. In other things supply and demand regulate; but in this, the Government spends thousands every year to induce young people to enter a profession where there are twice too many now. The young man either becomes a school teacher likewise, or he goes

to the University. In either case he is no longer of any use as a producer, as a developer of this country's resources. When he is through he is not a farmer, a mechanic, a miner, in fact he has learned nothing to enable him to become a producer. Thus the country has been, and is, flooded with non-producers, male and female, and as we are only five millions, we cannot support the one-tenth of these non-producers. Hence they have gone to the United States, and Canada has been robbed of her best and brainiest young men and women, and European immigrants have been imported at \$74 per head to take their places.

Suppose a teacher should say to her class, "I will give each of you five cents if you will learn that lesson." Immediately thoughts of candies or toys loom up; in a short time the lesson is learned thoroughly and well, in order to get the five cents. Is that an education? After one trial of this kind no more lessons would be learned unless they were paid for it. Now that is what the Government of Ontario has been doing for the past thirty years, only substituting a certificate instead of the five cents.

I heard the present Premier of Ontario say on one occasion, when he was then Minister of Education, that the young of Ontario would not take in an education unless they thought it would pay them to do so, that is, unless they were rewarded for doing so. He said, if you don't hold out the hope that they could make money by studying, they would not study. This condition of things is the inevitable result of the reward system, whether that reward be five cents, or a prize, or the passing of an examination.

#### SUMMARY.

1. The pupils of the teacher who does most cramming and worse teaching will succeed best at the written examinations. Hence teachers cram.
2. Examinations cause over-pressure and early death of many students.
3. Examinations cannot test the moral and inspiring influence of a teacher.
4. Ninety per cent. of examination gold medallists are failures when they go out into the world.
5. Examinations cause pupils to try to pass rather than to try to master the subject and get a thorough education.

6. Examinations tend to kill individuality in teacher and pupil. It pays better to memorize than to think it out.

7. Examinations cause teachers to push along brainy pupils and neglect dull ones, who need most attention.

8. Examinations tend to make pupils thieves and teachers accessories.

9. Examinations tend to make study a task, not a pleasure, as it should be.

10. Uniform examinations tend towards uniformity and consequently towards mediocrity.

N.B.—In all the above I mean uniform written examinations : not oral, class, or term examinations.

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*SHOULD PUBLIC SCHOOL TEACHERS' REMUNERATION BE  
INCREASED? WHY? AND HOW?*

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In dealing with the question of the salaries paid our Public School teachers, I am sure you will all acknowledge at the outset its importance. Mr. Millar, Deputy Minister of Education, has said that the watchword of education for the twentieth century should be "Higher qualifications for teachers and better remuneration for their services."

The Department must answer for the first part of the watchword, while the latter depends chiefly on the people for its solution. It is a matter that comes before the most of our trustee boards yearly, in the hiring of their supply of teachers, especially when changes have to be made or new teachers engaged. Applications for an increase in salary are often made by our teachers, very often with little success. One of the results has been that the greater percentage of them, especially the men, only use the profession as a stepping-stone to some other calling or profession which seems to offer better returns for their labor, besides opportunities of filling more important positions of honor in our midst. This again has resulted in the overcrowded state of many of the professions and what, to me, appears even worse, viz., the belittling of the importance and work of the teacher's profession.

While the remarks I shall make will apply more particularly to the rural sections, they will, to some extent at least, apply to urban sections as well. Let us look at the situation as it appears to-day as gleaned from some of the latest reports. In that of the Minister of Education of Ontario for 1900, we find that the average salary paid in the Province in 1899 to our Public School teachers was as follows: males, \$394; females, \$294. If we confine ourselves to the rural sections, including villages, but leaving out towns and cities, we find the average to be \$344 and \$251, respectively. In 1887 the average was \$398 and \$272; in 1892, \$383 and \$269, showing a slight decrease, which seems to have grown greater as the years passed on, and is vastly more marked than that occurring in cities and towns, where, in fact, the salaries paid females during this period have continually increased. Turning now to view the situation in some of the neighboring States, where almost similar

conditions prevail as amongst us, such as the prosperity of the people, the desire for education, the qualifications and attainments of the teachers, and the requirements of the system in use, we find that in New York in 1898 (the last year for which we have a report), the average salary paid to Public School teachers was \$516.75. (The salaries of males and females are not given separately). In 1889 it was \$418.79, there being a gradual increase from year to year, amounting, as shown, to nearly \$100 in nine years. In Massachusetts in 1898 the average salary paid male teachers was \$150.00 per month; females, \$49.61 per month. Here again a gradual increase has taken place from year to year, and the report further states "that the changes in tenure were less where high wages were paid, and more where low wages were paid." In Michigan, where newer and, in some parts, pioneer conditions prevail, the average paid male teachers is \$44.48 per month, for a term of nine months; females, \$35.35 per month for a like term, or a yearly amount of slightly over \$400 for males, and \$318 for females.

From the foregoing it will be seen that the average salary paid in Ontario is not only lower than that paid in the States referred to, but has gradually decreased during the last ten or fifteen years, while theirs have increased during the same period. What is the reason? Are we less prosperous as a people now than we were at that time? Are we less prosperous or less interested in education than our neighbors? Is our educational system inferior to theirs, accepting teachers of lower qualifications and requiring less of them? I think the answer in every case must be decidedly, No. Let us look at some other reasons. *Why?* As you are aware, the qualifications of teachers have been raised. No third-class certificates are given. In order, then, that a second may be obtained it requires, on the average, one year's more attendance at some High School or Collegiate. This certainly means, on the part of the candidate, increased expense both in time and money, while it should also give them greater fitness for their future work, besides somewhat reducing their numbers. I have already referred to the use that is being made of the profession as a stepping-stone to others. Now, education has been defined as a life-giving process, and we know that only life can impart life. A teacher of over twenty years' experience has recently stated that he knows of no profession that makes a greater demand on a person's vitality than does the teaching profession. A teacher who has for his or her ideal some other calling will, while spending a certain amount of their youthful activ-

ity, reserve their best and ablest efforts for their future work, and the result is a loss to the children of our land. Says a recent writer: "The child is the hope of the race. The individual who has no care for the unfolding of the child nature can have no vital interest in the welfare of any social institution in its perpetuity."

Let us look at another reason which has become more marked of late years. I refer to the delegation of the home training of our children to outside sources. Owing to the keen competition in business and commercial circles to-day, the whole energies of those engaged therein must, to a great extent, be devoted to their calling if they would ensure success in life. They become too absorbed in business, and too tired with the duties of the day to take much part in the duties of the home above supplying the material necessities. Further, there is the demand of the social circle upon the parents; the vast increase in our fraternal and religious organizations, requiring of the mothers as well as of the fathers a certain amount of their time. The result is that the children are receiving their moral as well as their mental training outside the home. Now it must be apparent that the teacher coming in contact with the children for five days in the week at a period in their lives when their characters are under formation, will have a great and lasting influence, both by example, precept and command, on such formation. An American writer has said that "the American home lies at the very beginning and foundation of a pure national life." What is true of America is also true of Canada in this respect, and what is true of the home will be true of any person or place to which home duties are delegated. There is a close connection, then, between the training our children receive to-day and the nature of our national life to-morrow.

J. M. Cotterell, Superintendent of the Detective Association of America, states in his report that "after twenty-five years' experience with criminals and in searching for the cause of crime, we find that lack of humane education is the principal." Nearly a century ago France found that a great proportion of her children were illiterate, while their training was in the hands of the Church. The State took the education of her children under her control, going to nearly the opposite extreme with regard to religious and moral training. A recent French writer says, "Seventy-five years ago France set up her godless schools, and now, while her children can read and write, crime has greatly increased among them."

The increased, and I may say increasing, responsibility of the



teacher, the higher mental qualifications required of them surely demand a fairer remuneration than they are receiving. Our educational system is claimed to be the equal of any in the neighboring States or any other land, and, in many cases, is acknowledged to be superior. Surely, then, those who are engaged therein should receive equally as good remuneration for their services.

Let us now turn to the last part of the question. How shall they be increased ? Here, perhaps, is the more difficult part of the question to answer, but an understanding of the situation should surely to some extent aid in the solution. A generation ago the relation between the teacher and the parents was closer than at present. One of the chief events of the rural sections was the annual and, sometimes, semi-annual public examination of the school, when trustees, parents and teachers from neighboring sections gathered to review the school and test the efficiency of both the teacher and the pupils. The result was greater interest taken in the school and higher value being put on the work of the teacher. In Michigan they have at present what is called "Mother's Day," when all the mothers in the section are requested and expected to visit the school. As a result it has been noted that at their annual school meetings the tendency now is to vote for longer terms and higher salaries.

What appears to be needed in our day is a larger knowledge and appreciation on the part of the public of the work of the teacher, and especially the responsibilities borne by them. This is, to some extent, true of the teachers themselves, so that they may place a higher value on their services.

At the last annual meeting of the Oxford County Teachers' Association, a resolution was passed asking that a minimum salary for teachers be established. In Massachusetts the State gives a grant towards the salary of the teacher in weak sections. Any action by our Education Department might be along the lines thus indicated, as well as along the following, which I believe will tend very materially to a solution of the question, viz., the consolidation of our rural schools. In many parts of the States the scheme is being carried out with success. In Massachusetts a great portion of the State is covered in this way, and is, no doubt, the chief cause of the high average salaries, already referred to, paid there. In some parts of the Western States, where the advantages and facilities are no greater, if as great as with us, the schools are being consolidated, with uniform success and with advantage to all con-

cerned. As our population increases and becomes more prosperous, as our highways become in better condition for travel, thus increasing the facilities for transportation, the question of consolidating our rural schools will, no doubt, come rapidly to the front as their advantages are realized by the rural communities. What may become a factor in hastening the matter would be the early construction of the large number of electric roads, especially in the south-western part of our Province, the promoters of which have been recently granted charters. It would, perhaps, be wisdom on the part of rural municipalities entering into agreements with such companies for right of way and other privileges to have some reference in the agreement as to the rates to be charged to the possible transportation of their school children to the consolidated schools.

In the meantime let us strive to uphold the teacher's profession, with its aims and responsibilities, as one of the noblest in our land, to impress on our people its importance as a factor in the well-being of the community and in the moral upbuilding of a pure, loyal, national life. And as an earnest of our efforts, let us strive to give fairer remuneration for the services rendered.

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*OUR RURAL SCHOOLS AND HOW THEY MAY BE IMPROVED.*

ROBERT MCQUEEN, KIRKWALL.

Our Rural or our Country Schools are really the schools of our country, for the reason that in these schools a large majority of the youth of our Province receive the whole of their educational training. And a large number of these, again, never complete the course of Public School studies prescribed by the Educational Department, very many of them leaving school while under twelve years of age, without availing themselves of the advantages of the existing state of things.

Another cause that in the past has operated against the fullest measure of success attending the work sought to be done in these schools has been the fugitive nature of the profession of teaching itself. The frequent change of teachers, largely due to the temporary nature of the certificates held by so many of those engaged in the active duties of the profession ; the limited term of these certificates, necessitating their resigning their positions just as they have got fairly started and their experience was beginning to be of service to themselves as well as to the profession ; and these, in many cases, succeeded by the inexperienced or newly licensed graduate, who, in turn, had to retire as his predecessor had done, some of these retiring in order to secure higher and permanent qualifications, but the majority leaving the profession altogether. In nearly every case these changes are a distinct loss to the school, no matter how efficient their successors may be. Besides, no teacher can do his or her best work in one, two, three or even five years.

If, as we believe it to be, the formation of character is the most important element in the school life, then that cannot be achieved in a day or a year, either. Impressions, deep and durable, may be made in a short time, but character is of slower growth, and before much progress in that line can be made the teacher has to manifest that he or she has a character of his or her own ; and it is only when the teacher has attained to a recognized standing on the ground not only of efficiency in school work and management but of revealed worth that he or she is fitted to do their best work to the highest advantage of all concerned.

The thorough identification of the teacher with the every-day life of the community and as a co-worker of the parents places him or her in the rightful position and proper relations for discharging all the functions of the teacher's office. The two lines, therefore, along which we think change may be made with advantage are : First, the securing, if possible, a longer term of attendance at school, allowing the ground to be covered and the work done without so much "cram" and continuous strain on both pupils and teachers as we have had in the past. Second, an effort to give a more permanent character to the profession itself and at the same time lessening the evils of constant change.

What are some of those things which we consider would be helpful in the directions indicated ? We note the existing provisions of the School Act with regard to Continuation Classes in single sections or in groups of sections, with corporate powers to the sections thus grouped ; also the powers conferred on municipal councils to provide, subject to the Department regulations, for the teaching of agriculture in the schools of the municipality.

1. With regard to grouping for continuation work, we simply raise the question without discussing it. Would it not be better to provide that in each school there be a "post-entrance course" of two years' duration, the subjects for each year to be prescribed by the Department of Education, and if not at once, yet looking forward to the embracing the subject of agriculture in the last year of the course ? If the time were thus extended and the subjects grouped, the work might be accomplished without so much haste and pressure as at present exists. One great evil of the existing state of things is the trying to do so much in a limited time. Any provision that could be made that would secure the attendance of the majority of our rural population at the school in their own section until they attained the age of fourteen years would be a great boon.

2. That all certified teachers be qualified for life service before entering on the duties of the profession, obviating the necessity of having for a time to give up teaching in order to qualify fully for their life-work, removing a cause of constant change and securing from the outset fully qualified teachers.

3. The fixing by the Government of a minimum salary to be paid to every duly qualified and certificated teacher. I should like to say that that salary should be four hundred dollars per annum, but certainly not less than three hundred and fifty dollars per annum. This would place all on an even footing at the start and do

away with that degrading underbidding so largely obtaining at the present; and any subsequent increase of salary to be based on successful work, and to be a matter of arrangement between the teacher and the board employing him. The objection may be raised, that there are districts of this Province in which, owing to new settlement, sparse population, and other causes, it is impossible for them to pay the salary asked. We answer that the Government ought, in such cases, to supplement out of the public funds a sufficient sum of money to enable these localities to secure just as efficient teaching as other parts of the Province, without being unduly burdened, on the same principle that railways and colonization roads are aided from the revenue of the Province.

4. A restriction or limitation of the absolute powers of dismissal at present vested in school boards, except in cases of incompetency and failure to conduct the work of the school in an efficient manner. Teachers who are doing efficient work and properly conducting both themselves and the school are frequently dismissed on the ground of personal feeling, aroused in one way or another between the teacher and some member of the board or some other individual who has influence with the board. In such cases the teacher should have the right of appeal to the Minister, through his or her inspector, before dismissal can take place. If such rights existed, the fact of their existence would be, of itself, a barrier to the call for their exercise, for the feeling would very often die out, just because the way to its immediate vent was barred by the rights of the teacher.

5. The providing of a teacher's residence, with at least one acre of land attached, in each rural school section. Sufficient remuneration, and a neat, convenient and commodious residence would be an inducement to many to make teaching their life-work instead of a mere stepping-stone to something higher, as it is commonly but wrongly stated. No one who gives up teaching ever goes up higher. He is as high as he can get if he takes a correct view of the opportunities and privileges of Public School work and bends the energies of a consecrated life to the work laid to his hands in any rural school.

One of the objections to providing residences is that so many of our teachers are ladies, and they do not require a residence. Quite true, but if a young man intending to make teaching his life-work sees an eligible situation, but it is occupied by a lady, he had better try if he cannot persuade her to marry him, and then he will likely

get both the teacher and the school, and need the residence into the bargain. What we really need is to get the best possible teachers into the profession into our schools, and then keep them there as long as we can ; and it is only as we succeed in this that our school system will secure the best and most lasting results, and vindicate its right to exist.

The teachers are, more than the system, symmetrical, though it be theoretically ; and to secure these best results, we say again, teachers of the right stamp should be retained as long as possible in the same place.

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## POETRY IN EDUCATION.

S. ALFRED JONES, LL.B.,

Chairman Toronto Public School Board.

Poetry is a subject as deep as the sea, as broad as the universe, and as high as the heavens themselves, and one on which an admirer could discourse for a lifetime and never tire. I shall endeavor, in the time at my disposal, to place before you a few thoughts in this great and wondrous realm, and for the most part to direct them to the utility of poetry in our aspirations, work and daily vocations, and particularly in relation to education.

To attain perfection in the cultivation of the mind is to produce the *whole* man—an equal development of soul and intellect, not neglecting one for the undue advancement of the other.

The mind of this age runs too much to the scientific at the expense of the ideal. It is as necessary to the complete man that the imaginative faculties should be cultivated as much as those of the so-called region of practicality, which strips the ideal of its beauty and reduces everything to the dead level of fact, and which affects to scorn sentiment as fit only for the weaker mind.

Man is not merely a being endowed with reason and a conscience, he has also affections, emotions and imagination. To know the whole truth, imagination is as essential as reason. Poetry is as real as science. It is the result of applying emotion and imagination to the facts of nature and life.

Poetry is the art of idealizing in thought and expression, and has been beautifully described by Coleridge as "the blossom and the fragrance of all human knowledge, human thought, human passions, emotions, language." Its Greek derivative is *poieo*, to make or create, and *poiesis* was applied by the Greeks almost exclusively to designate the artistic productions of the imagination, expressed in language. It has been truly said that a poet is a maker as the word signifies, and he who cannot make, that is invent, hath his name for nothing.

An apt imitator is not a true poet. A poet is a creator, not a mere jingler of rhymes. The poet, who to my mind combines most completely the expression of the loftiest ideals of human life and

imagery with the most chaste diction and with melody of cadence, is Tennyson. His interweaving of the simile in a manner so beautiful and yet so subtle is delightfully depicted in his bugle song, of which I cannot refrain from reading two stanzas :

“ The splendor falls on castle walls  
 And snowy summits old in story,  
 The long light shakes across the lakes  
 And the wild cataract leaps in glory.  
 Blow bugle, blow, set the wild echoes flying ;  
 Blow bugle ; answer echoes, dying, dying, dying.

“ Oh, love they die in yon rich sky,  
 They faint on field, or hill, or river,  
 Our echoes roll from soul to soul  
 And grow forever and forever.  
 Blow bugle, blow ; set the wild echoes flying,  
 And answer echoes answer, dying, dying, dying.”

Aristotle considered *poiesis* to be the imitation of parts of nature, Plato the expression of dreams of man. It is worthy of note that both slighted the importance of versification, although Plato admitted on one occasion that he who did not know rhyme could be called neither poet or musician. The trend of modern poetry has been more toward beauty of thought and substance than correctness of form. Browning's poetry is a striking example of this.

The tricks of alteration or acrostic are neither ornaments nor aids. On the contrary, they are, in their employment, subversive of good work, for by their essential restrictiveness they hamper the natural expression which is the essence and life of true poetic art.

Rhythm, which strangely enough is the only English word with which no English syllable will rhyme, expresses more than rhyme ; it conveys the idea of harmony and easy flow, besides that of mere rhyme.

Poetry may be strong in color and weak in rhyme, or *vice versa*. Nor is the unfailling and unbroken metrical cadence an unerring sign of purity in the art. An occasional break in the motion often serves but to accentuate and intensify the beauty of the metre in which the production is set.

Poetry, with its wonderful attributes, has none, perhaps, more remarkable than its adaptability as the channel through which the



patriotism and military ardor of a people may be conveyed. The patriotic songs our boys sing will thrill them whenever repeated through life, and will until their dying day wake in them the love of their country. This Canada of ours is not made more safe from the invader by the fortifications at Halifax and on the Pacific, than it is by the patriotic sentiment which is being planted deep in the breasts of our boys at school in the loyal words they sing. A most striking example of this great function of poetry is furnished by the work of Kipling, that great singer of the soldiers' lay, if not, indeed, the greatest of any age, who has achieved the most wonderful results from his patriotic and soul-stirring lines. His work combines true and artistic worth with the most wonderful breathing of patriotic emotion. And the golden hail which has enveloped some of his later verses in veritable showers, furnishes alike a marvellous tribute to the great soul of the poet, as well as a lasting blessing to the war-swept homes of the poor people of our beloved Empire.

The last stanzas of his "Sons of the Widow," written in the homely diction of the rank and file of the British army, can never grow old or be read without a thrill of love and pity for the soldier and affection for the author:

- " We 'ave 'eard of the Widow at Windsor,  
     It's safest to let 'er alone,  
 For 'er sentries we stand by the sea and the land  
     Wherever the bugles are blown.  
 (Poor beggars, and don't we get blown ?)
- " Take 'old of the wings o' the mornin'  
     And flop round the earth till you're dead,  
 But you won't get away from the tune that they play  
     To the bloomin' old rag over 'ead.  
 (Poor beggars it's 'ot over 'ead.)
- " Then 'ere's to the sons o' the Widow,  
     Wherever, 'owever they roam,  
 'Ere's all they desire, an' if they require  
     A study, return to their 'ome.  
 (Poor beggars, they'll never see 'ome.)"

To the poet alone belongs the license to clothe his thought or his dreams in language which is more than subtle, and often with an indefiniteness little less than the absolutely mystifying. After reading some obscure passage, some ask, Did the poet himself

know his meaning? Or did he place his phrasings on paper to form an interesting problem? Whatever the answer may be, one of the most charming and fascinating of English studies is that which seeks to fathom the thoughts of the great poets, beclouded as they often are by their subtilty of expression.

If prose be fanciful in its treatment, unless the pen be wielded by a master, the effort borders on the ridiculous; on the other hand the play of the fancy in well-wrought rhyme is the very spirit and life of poesy. Thus does poetry lightly and merrily lend its charm to the expression of what often would be left unwritten, were dull prose the only channel through which to express the lighter flights of the imagination.

One of the vital aids to education of this great art is the necessity it calls forth in the writer for a search for synonyms whereby to compass the delicate shade of meaning so necessary to the expression of the artist's exact idea. It thereby broadens the powers of expression and gives the writer a more comprehensive and confident grasp upon the essentials necessary to the conveyance of thought by nicely shaded expression.

A great and noble use to which poetry has been applied is that it has been made the beautiful medium whereby to convey prophetic utterance. Many are the instances of the strength of prophetic poetry. Little did Tennyson think that, a few short years after his death, a conference or parliament of the great powers of the world would be actually brought about to discuss proposals for a universal peace. In view of recent events how wonderful is his song of prophecy in "Locksley Hall":

"For I dipt into the future, far as human eye could see,  
Saw the vision of the world, and all the wonder that would be,  
Till the war drums throbbed no longer, and the battle flags were furled  
In the parliament of man, the federation of the world."

And how marvellous is the prophecy of the coming Christ contained in Virgil's fourth Eclogue, where the poet calls on the muses to aid him in a work higher than any he has yet attempted. The chaste virgin, Lucina, is invoked on behalf of the babe soon to be born. The coming child shall overthrow the age of iron and found a golden race; he shall take on himself a divine nature. Under his mild government men shall recover their ancestral virtues. From the very cradle of the babe shall spring living flowers, and this age of peace shall endure forever.

The pen, the brush and the chisel are kin—all offspring of the mother art—why dissociate them? A true poet will paint pictures for the imagination. A good picture or perfect statue is a poem in its harmony of color and detail and its symmetry of lines. Music, indeed, is described as inarticulate poetry. Simonides said:

“Painting is mute poetry, and poetry is a speaking picture.”

In the Greek language, long before poetic art was called making it was called singing.

How elevating and refining is the influence of good poetry? Does not one feel the very mother's touch itself in reading these few lines of James Whitcombe Riley?

“The touches of her hands are like the fall  
Of velvet snowflakes, like the touch of down  
The peach just brushes 'gainst the garden wall,  
The flossy fondlings of the thistle wisp  
Caught in the crinkle of a leaf of brown  
The blighting frost has turned from green to wisp  
Oh, rarely soft the touches of her hands  
As drowsy zephyrs in enchanted lands,  
Or pulse of dying fay, or fairy sighs  
Or in between the midnight and the dawn  
When long unrest and tears and fears are gone  
Sleep smoothing down the lids of weary eyes.”

The knowledge of good and pure poetry is a sinew to the building of great character. I would have every child commit to memory that heaven-sent gem of English, “Grey's Elegy,” not only commit, but analyze and realize its depths of meaning; a poem, every stanza of which is a pearl of great price.

Whenever the soul feels deeply or is stirred by a great thought, the poetic form of utterance becomes at once the most natural for its faithful interpretation. One who thinks deeply can win others to profound thought, and that the more readily when that thought is embowered in poetic form. How great and intense are the thoughts of the writers of the great Epics, and how lofty and deep are our thoughts as we follow the wonderful singers in their fathoming of the great unseen and unknown. And what a broadening and deepening upon the mind such contemplations must produce; an effect that at once makes the frivolous earnest and the thoughtless sincere. Education by example and education by association of ideas, not association in its ordinary significance, but

that association which is consummated by the mind of the reader travelling side by side with the thoughts of the writer in his wondrous idealizing or imagery.

How exquisitely Baily has marked the elevating power of poetry in these four lines :

“ Poetry is itself a thing of God,  
He made His prophets poets, and the more  
We feel of poesie, do we become  
Like God in love and power, under makers.”

Pages of philosophy oft-times accomplish less than one little fragment of poetry. No matter how material or engrossed in business a man may become, there was at one time a breath of poetry in his life, and that idea when touched upon in after years will awaken the best in him.

Another aid of poetry in the era of character forming is the lasting and elevating pleasure with which we are rewarded by the contemplation of its beauties. To my mind the beautiful words of Keats in his description of a Grecian Urn, form a fusion of all poetic elements, form and color in one blended loveliness. One can almost see in these lines the beautiful design so wonderfully depicted :

“ Thou still unravished bride of quietness,  
Thou foster-child of silence and slow time  
Sylvan historian, who canst thus express  
A flowery tale more sweetly than our rhyme,  
What leaf-fringed legend haunts about thy shape  
Of deities, or mortals, or of both ?  
In Tempe, or the dales of Archady  
What men or gods are these ? What maidens loth ?  
What mad pursuit ? What struggle to escape ?  
What pipes and timbrels ? What wild ecstasy ?

“ Heard melodies are sweet, but those unheard  
Are sweeter ; therefore, ye soft pipes play on  
Not to the sensual ear, but more endear'd  
Pipe to the spirit ditties of no tone ;  
Fair youth beneath the trees, thou canst not learn  
Thy song, nor ever can those trees be bare  
Bold lover, never, never, canst thou kiss,  
Though winning near the goal—yet do not grieve,  
She cannot fade, though thou hast not thy bliss,  
Forever wilt thou love, and she be fair.”

True poetry is the priestess of the very truth. The secret of its great power is that in it the heart speaks; and what comes from the heart finds a sympathetic heart echo. The public speaker who woos with his words, and wins in spite of a pre-antagonism, will be found to have in him the poetic instinct, speaking from the heart in language the more apt and expressive because they come from the heart.

An instructive and beautiful use of the wonderful art is to give poetic expression of ideas in prose, and thus by the beautiful diction of the word painting of prose-poetry, attract, touch and elevate many whom the prosaic would not reach. Emerson's writings give many instances; I quote a few lines:

"The lover cannot paint the maiden to his fancy poor and solitary. Like a tree in flower, so much soft budding informing loveliness is society for itself, and she teaches his eye why beauty was pictured with loves and graces attending her steps, and in her he sees a resemblance to summer evenings and diamond mornings, to rainbows and the song of birds."

Ruskin, too, in many of his beautiful treatises, proves himself a prose poet. An apt instance occurs in his essay on the uses of ornament. Speaking of the fountain, he says:

"It is just there, perhaps, the happiest pause takes place in the labor of the day, when the pitcher is rested on the edge of it, and the breath of the bearer is drawn deeply, and the hair swept from the forehead, and the uprightness of the form declined against the marble ledge, and the sound of the kind word or light laugh mixes with the trickle of the falling water, heard shriller and shriller as the pitcher falls. What pause is so sweet as that, so full of the depth of ancient days, so softened with the calm of pastoral solitude?"

The language is not grandiloquent in the following lines, but how poetic the idea conveyed in them: "The consequences of our acts run eternal through time and through space. If we infringe never so slightly upon the life of a fellow-mortal, the touch of our personality, like the ripple of a stone cast into the water widens and widens in unending circles across the æons till the far-off gods themselves cannot say when action ceases." The words are not Kiplingesque, but nevertheless they are Kipling's.

The study of poetry may awaken unsuspected and perhaps otherwise undiscovered genius. Accident has occasioned many eminent poets to display their powers. Cowley became a poet of

no ordinary merit at the age of fifteen. In his mother's apartment he found a copy of "Spencer's Fairy Queen," and by continued study of poetry he became enchanted with the art. If Shakespeare's imprudence had not obliged him to quit his wool trade and his town and join a troupe of actors, and become disgusted with being an indifferent actor, the wool seller had never been the celebrated poet.

La Fontaine, at the age of twenty-two, quite by accident heard some verses which inspired him wonderfully with a sudden impulse. He purchased the work and was so exquisitely delighted with the verses that he spent days and nights in their recitation, and became irrecoverably a poet.

We must remember that now, as ever, the race is not always to the shrewd nor the battle to the literal minded. Some time ago two travellers in a tropical country wrote home their first impressions of what they saw. One described the long lines of palm trees as looking "like row after row of feather dusters"; to the other they seemed "weird magicians, hoary and solemn, grown unmeasurably old in all mysterious knowledge, crooning their strange secrets over as the sun shone upon them and the wind passed by." The one simile marked the fault of the day, smartness and glibness of superficial observation, the other comparison was the expression of that imagination which has a vision of its own—that "inward source of living light which vivifies the stone." If, as it is said, the aspect of the world depends less upon the things seen than upon the eye which sees them, why not give more thought to the cultivation of that inner eye?

A poet is a necessity for a country, a nation such as Canada is. If the mind of the country runs solely to materialism it will chill the young life of budding poetry. Let us then make it our earnest endeavor to cultivate an atmosphere and a soil in which the first efforts of poetic minds may receive that nurture and encouragement which is a very necessity to the life and the development of the early years of aspiring genius. If there be inculcated into the mind of a child a taste for poetry, a great gain is made in the direction of a greater purity and refinement. If more is done—if the child be taught the basic principles by which to distinguish between poetry and mere rhyme, between the trick of stringing rhyming lines, and the expression of the heart and soul in words, and brought to a deep interest in the heaven-born message of true poesy, who can tell to what grand results the seed so well sown

may not grow? In these little ones let there be placed the appreciation of the poetry of motion, of color and of light, of the swaying trees and the swinging sea, of the rhythmic summer evening when nature clothes itself in the exquisite poetry and harmony of a tinted sky and a fragrant and music laden air.

May I, in closing, venture a suggestion? The Art Leagues have done and are doing a great and glorious work in the encouragement of an artistic taste in the scholars, which is being disseminated throughout our homes; in fostering a greater interest in architecture and the beautiful lines of the sculptor. Music has deservedly received the attention of our educationists. Why not add to these sister arts the beautiful, the entrancing, the enthralling and ennobling art of poesy? To what height may not some of our little ones in future attain if the seed of a proper poetic conception be well sown?

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*REPORT ON TEACHERS' PENSIONS AND RETIRING ALLOWANCES.*

## TEACHERS' PENSIONS IN EUROPE.

In Europe the system of teachers' pensions has long since passed the experimental stage and is established upon a firm basis in every country except Spain. The system in Germany is over one hundred years old; that of Britain was adopted only three years ago. The system cannot be said to be peculiar to any particular style of government, since we find it in operation not only in countries like Germany and Austria, where paternalism is strong, but also in the republics of France and Switzerland and in the democratic Mother Country. The various European countries show every variety of system, but through all runs a general principle that varies but little. This general system seems to be retirement at about the age of sixty years on a pension of 50 to 80 per cent. of the last year's salary. The majority of the continental nations do not tax the teachers to support the pensions. Many countries give pensions to widows and children of the teachers.

## AUSTRIA (GERMAN).

Teachers' salaries are taxed 2 per cent. plus the first tenth of the first year's salary plus the first tenth of every increase. The rest of the fund is supplied by the State.

Pensions vary from a lump sum equal to one and one-half times the last year's salary payable when incapacitated after ten years' service, to a sum equal to full salary paid annually after forty years' service.

## AUSTRIA-HUNGARY.

The pension scheme dates from 1875. For three years the Government made an annual grant of \$25,000, for the next three years an annual grant of \$50,000, and since that time \$75,000 annually. A widow may get 40 per cent. of her husband's pension.

## HOLLAND.

The Pension Fund was established in 1878, and teachers are pensioned after ten years' service if incapacitated, and at sixty-five



years for old age. Teachers pay 2 per cent. of salaries and the State pays the rest. Teachers who withdraw from the profession cannot recover anything.

The pensions vary from one-sixtieth of last year's salary for eight years' service up to an annual payment equal to two-thirds of last year's salary. The teachers have themselves organized a fund to aid widows and orphans of teachers.

#### BELGIUM.

The maximum pension is \$1,000. It is calculated on the basis of one-fifty-fifth of the average salary for last five years multiplied by the years of service. Teachers may retire after five years if incapacitated, or at fifty years, even if in good health, with thirty years of service, or at sixty years with fifteen years' service. Teachers contribute nothing toward their pensions, but they pay 4 per cent. on salaries to provide a fund for teachers' widows and orphans.

The teachers' pensions are supported by a tax distributed as follows: two-fifths paid by the State, one-fifth paid by the Province, and two-fifths paid by the local community. The Pension Law was passed in 1842, and amended in 1872.

#### FRANCE.

Teachers are on the same footing as other Government servants. They contribute 5 per cent. of salaries plus one-twelfth of first year's salary plus one-twelfth of each increase of salary for the first year of the increase. The pension amounts to one-sixtieth of the average salary for the last six years multiplied by the years of service. Teachers are pensioned (*a*) when incapacitated, (*b*) after thirty years' service, (*c*) when sixty years of age.

The widow of a teacher may receive one-third of pension to which her husband was entitled.

#### ITALY.

Payment from the fund in Italy began in 1889, but for ten years previous to that time the fund was accumulating. During the ten years of accumulation the State appropriated \$600,000 plus 5 per cent. annually on teachers' salaries, the communities paid annually 5 per cent. on teachers' salaries, the Provinces the same amount,

and the teachers 2 to 3 per cent. on salaries. Since 1889 the State, the Provinces, the communities and the teachers each pay 2 per cent. on teachers' salaries. The pensions are payable at age of sixty years with forty years of service, or at sixty-five years with thirty-five years' service. The pension amounts to full salary, but there is a provision giving a reduced salary to a teacher who is incapacitated after twenty-five years of service. With less than twenty-five years' service a teacher has no claim upon the fund, nor is there any provision for an annuity to family of a deceased teacher.

#### GREECE.

Teachers pay 5 per cent. of salaries, and are superannuated after twenty-one years' service.

#### PORTUGAL.

There is a pension system for teachers, but details are not available.

#### SWITZERLAND.

Education in Switzerland is not controlled by the Confederation but by the several Cantons. Almost every Canton has, however, some system of pensions for teachers. Perhaps in no part of the world, except Prussia, is illiteracy so rare as in Switzerland; and it is a significant fact that in every part of the Confederacy the calling of the teacher is highly respected and his remuneration fair when compared with that paid for other services. The Educational Councils of the various Cantons have large discretionary powers regarding the pensioning of teachers whose claims upon the fund are not strictly within the law.

ZURICH.—The regulations of 1859 decree as follows: Teachers who, after at least thirty years of service, and who retire from old age or ill-health with the permission of the Educational Council, have a claim during life to receive an annual amount of at least half their previous salary. The amount of pension above half salary is regulated by years of service, previous ability of teacher, and the nature of the services he has rendered to the State. The Educational Council may also recommend the Government to superannuate a teacher who, owing to old age or ill-health, is incapacitated, but who has not served thirty years.

WINTERTHUR.—The regulations are much the same as for Zurich. In the higher city schools the amounts of superannuation allowance vary from 2,500 francs to 3,000 francs.

BERN.—The Act for this Province, in so far as it relates to primary schools, was settled by a regulation passed May, 1894. The teacher who, after thirty years' service in a primary school, is incapacitated, may, either with or without his own consent, be superannuated by the Educational Council with a pension varying, according to years of service, from 280 francs to 400 francs. Lady teachers may be superannuated after twenty years' service. The laws of the Canton of Bern further give power to the Educational Council to establish a kind of insurance for teachers and force them to contribute. In this case the amounts paid out are based entirely upon the receipts, the State giving no contribution. Teachers in High Schools are exempt from this law. In the city of Bern, by decree of December 3rd, 1893, both the salaries and pensions of teachers were considerably raised. The Common Council may grant, after thirty years' service (or if a lady, after twenty-five years' service) in a public primary school, a pension of 800 francs so long as the teacher engages in no remunerative occupation. If it is in the interest of the school the pension may be granted to a teacher who has not given the necessary years of service to have a legal claim for a pension.

BASELSTADT.—In this Canton the law enacts that a teacher who is incapacitated shall have a pension amounting to 2 per cent. of his last year's salary multiplied by the number of years of his service. The Educational Council may increase this at their pleasure, but in no case is the amount to exceed an annual pension of 4,500 francs.

GLARUS.—The pension law was passed in 1873, and reads as follows: "The Counsellor of the Government is authorized to partly support teachers who through old age or infirmity are incapable of service." The amount varies, according to the need of the teacher receiving aid, from 100 to 400 francs. But in many parts of this Canton it is a custom for the individual school to supplement the State pension, and some schools pay a yearly amount of 800 francs to a worn-out teacher.

SCHAFFHAUSEN.—Pensions vary from one-third to one-half of former salary.

AARGAU.—A teacher who is dismissed may draw up to one-third of his former salary if the grant is approved of by the inspector and the community. Teachers who retire voluntarily from service are pensioned as follows according to years of service: Primary teachers, 400 to 500 francs; Continuation teachers, 500 francs; Public School teachers, 400 francs; District teachers, 1,000 to 1,200 francs; Provincial teachers, 1,600 to 2,200 francs.

The above-named Swiss Cantons stand as representatives of a purely State-pensioning system. The teachers make no contributions to any fund. In many of the other Cantons the teachers do make contributions (compulsory). Some Cantons grant half-pensions to a teacher's widow, and some, as in Germany, grant pensions to children under eighteen years of age.

#### GERMANY.

As might be expected, Germany leads in the matter of pensions for teachers. The pension regulations vary somewhat for the different German States, but on the whole there is a fairly uniform system. Not only do teachers receive life pensions after certain years of service, but a teacher's widow and his children also receive State aid.

After ten years of service, or sooner if disabled, a teacher draws a pension of one-fourth his last year's salary. For each year of service beyond ten years one-sixtieth of the last year's salary is added, until after thirty years a teacher draws 75 per cent. of his last year's salary. He may in some States of Germany draw the full amount of his salary as a pension.

#### EXTRACTS FROM PENSION LAWS OF PRUSSIA,

1872, 1882, 1884, 1890.

I. Every official drawing salary from the State treasury is entitled to pension if after ten years' service he becomes incapable of performing his duties. If his disability is caused by injury or disease contracted during the performance of his official duties, he is entitled to pension before the expiration of the ten-year period. Those who have reached sixty-five years of age need not show disability to receive a pension.

II. Pension laws do not apply to teachers in universities but to

those in all other schools, including art schools and institutions for deaf and blind.

III. Regular allowances and supplies, as house rent, fuel, etc., if a part of the teacher's remuneration, are counted for pension.

IV. Pensions are paid monthly in advance.

V. Pensions cannot be transferred or seized for debt.

PENSIONS FOR WIDOWS AND ORPHANS OF PRUSSIAN HIGH SCHOOL  
TEACHERS.—EXTRACTS FROM LAWS OF 1882 AND 1897.

I. Widows and legitimate children of public officials are entitled to pensions if the official himself was so entitled.

II. A widow's pension is four-tenths the pension her husband would have received. It cannot, however, be less than 216 or more than 2,000 marks.

III. The pensions of orphans whose mother is living are each one-fifth of the widow's pension. In case of death of both parents, each child gets one-third of pension to which widow would have been entitled. But in no case can the total pension paid the family of a deceased teacher exceed the amount that he himself would have received upon retirement.

IV. A widow is not entitled to a pension if married to deceased within three months of his death, and it is proved that she married for sake of pension.

V. Neither the widow nor her children are entitled to a pension if the marriage occurs after the teacher's retirement.

VI. Pensions of widows and orphans are paid monthly in advance.

VII. Such pensions cannot be transferred or seized for debt.

VIII. The pension of a widow or orphan lapses upon the death or marriage of the person receiving it. An orphan's pension lapses when the orphan reaches the age of eighteen years.

The table on the next page will give a clear idea of the pension system for teachers in the several German States.

## PENSIONS OF TEACHERS IN THE HIGHER SCHOOLS OF GERMANY.

*Statistisches Jahrbuch der Höheren Schulen.*

1897-1898.

	Minimum amount.		Amounts in terms of the last salary after			Maximum amount.		Amount of yearly dues.
	Begins after	Amounts to % of last salary.				Reached after	Amounts to	
			10 years.	25 years.	40 years.			
	Yrs.	%	%	%	%	Yrs.	%	
1 Prussia and Alsace-Lorraine	10	25	25	50	75	40	75	None
2 Bavaria.....	4	70	70	80	90	..	100	"
3 Saxony.....	10	30	30	51	80	40	80	"
4 Wurtemberg . . . . .	10	40	..	..	..	..	..	..
5 Baden.....	10	30	30	52.5	75	40	75	None
6 Hesse.....	5	40	50	72.5	90	50	100	"
7 Mecklenburg-Schwerin . . . .	20	50	..	55	75	50	90	"
8 Saxe-Weimar.....	..	40	40	62.5	80	36	80	"
9 Oldenburg.....	..	50	50	65	80	50	90	"
10 Brunswick.....	3	33 $\frac{1}{3}$	40.8	63 $\frac{1}{3}$	85.8	50	100	"
11 Saxe-Meiningen.....	..	45	45	60	75	40	75	"
12 Saxe-Altenburgh.....	..	25	30	50	80	40	80	3%
13 Saxe-Coburg-Gotha.....	..	40	55	77.5	100	40	100	1%
14 Anhalt.....	..	33 $\frac{1}{3}$	40.8	63 $\frac{1}{3}$	85.8	49	100	None
15 Schwarzburg-Rudolstadt.....	..	40	40	62.5	80	36	80	"
16 Schwarzburg-Sondershausen.....	..	40	40	62.5	80	37	80	"
17 Waldeck.....	..	33 $\frac{1}{3}$	33 $\frac{1}{3}$	50	66 $\frac{2}{3}$	26	66 $\frac{2}{3}$	"
18 Reuss a. L.....	..	40	40	62.5	80	37	80	"
19 Reuss j. L.....	3	40	40	62.5	80	37	80	"
20 Schaumburg-Lippe.....	10	30	30	45	70	45	80	"
21 Lippe-Detmold.....	..	40	40	62.5	80	37	80	"
22 Lubec.....	10	33 $\frac{1}{3}$	33 $\frac{1}{3}$	58 $\frac{1}{3}$	75	35	75	"
23 Bremen.....	..	40	40	70	80	30	80	"
24 Hamburg.....	..	40	40	62.5	85	50	100	"

The following summary of facts relating to pensions in Prussia may be of interest:

I. The total sums paid teachers of elementary schools in Prussia as pensions amount to about 6 or 7 per cent. of the total salaries, and the further payments to teachers' widows and orphans are equal to about 3 per cent. of teachers' salaries.

II. While the Prussian pension law dates back to 1819, yet the State contributions towards teachers' pensions were insignificant until the last quarter century. In 1867 the State of Prussia paid out for pensions only \$6,000; in 1877, \$75,000; in 1881, \$121,200; in 1891, \$878,115; in 1897, \$1,389,500.

## DENMARK.

Permanently appointed male and female teachers are entitled to a pension after ten years' service if they are thirty years of age. For longer service the pension increases up to two-thirds the average salary for the last five years.

## NORWAY.

Pensions for teachers are under control of the parliament, and every case is dealt with on its merits.

## SWEDEN.

Pensions begin after ten years of service. After thirty-five years of service, and on attaining the age of fifty-five years, the pension amounts to 75 per cent. of salary, but the maximum pension is \$250. This amount is lessened by 1 per cent. for every year of service under thirty years.

In the High Schools of Sweden a teacher aged sixty-five years with a service of forty years may retire on a pension of \$800 to \$900.

## RUSSIA.

Details are not to hand regarding elementary schools, but there is a pension system, and it is being extended and perfected.

In the higher schools a principal draws \$400, an inspector \$350, and an assistant \$300. In St. Petersburg, Moscow, Riga, Reval, Warsaw, Kiev and Kharkov the pensions are higher. Here a principal draws \$600, an inspector \$450, and an assistant teacher \$375. Any teacher in these cities who is retained in service after twenty-five years draws a pension in addition to his salary.

## GREAT BRITAIN.

The Imperial Parliament passed an Act in 1898 called the Elementary School Teachers' Superannuation Act. This Act was followed by another in 1899, but the Act of 1899 was largely for the purpose of making clear and supplementing the Act of 1898. The Act applies to England and Wales, and to Scotland with some changes, to suit local control guaranteed by Act of Union. It does not apply to Ireland.

## SCOPE OF THE ACT.

To be eligible to receive benefits under the Act the teacher must be (a) a teacher recognized by the Education Code as certificated; (b) serve in recorded service.

Recorded service means service in following classes of schools :

(a) Public elementary day schools, including schools for blind and deaf.

(b) Training colleges.

(c) As organizing teacher.

(d) As teacher for pupil teachers.

(e) As teacher in a central class.

(f) Teacher in Reformatory or Industrial School.

} As defined by the Education  
Code.

#### BENEFITS PROVIDED BY THE ACT.

These are of three kinds, viz., The Annuity, The Superannuation Allowance, The Disablement Allowance.

##### *The Annuity.*

Every teacher certificated after April, 1899, must contribute to the Deferred Annuity Fund for every year of recorded service the sum of £3 if a male and £2 if a female. This sum is deducted by the Government from the annual grant to the school employing the teacher, and the School Boards have the power to deduct these amounts from the teachers' salaries.

The teacher's certificate expires when he reaches the age of sixty-five years, and he then receives an annuity for the rest of his life. This annuity will be large or small according to the years of service and the contributions of the teacher to the Deferred Annuity Fund. But if he lives to reach the age of sixty-five he is certain of some annuity even though he has taught but one year and made but one contribution to the fund. If he dies before the age of sixty-five neither he nor his heirs can get any benefit from his contributions.

##### *The Superannuation Allowance.*

This cannot become payable until the teacher has reached the age of sixty-five years, and is additional to any sum he may receive from his payments to the Deferred Annuity Fund. No teacher, however, can have any claim upon the Superannuation Allowance unless he has taught at least half the number of years between the time he is certificated and the time when he reaches the age of sixty-five years. For example, a teacher certificated at twenty-one years must, when he reaches the age of sixty-five years, have taught at least twenty-two years. Suppose that he has taught continuously for the forty-four years, he will then at sixty-five years get a superannuation allowance of ten shillings for



each of forty-four years, or £22 annually, as long as he lives. If he has taught less than forty-four years but more than twenty-two years, he will draw the ten shillings for each year of service.

*The Disablement Allowance.*

This is designed to meet the case of a teacher who becomes permanently incapable before he reaches the age of sixty-five years. This incapacity is determined by a medical examination conducted by the Education Department. To have any claim upon this Disablement Allowance the teacher must comply with the following:

(a) Have taught at least ten years and not less than half the years that have elapsed since he was certificated.

(b) Must show that he is in pecuniary need of a grant.

(c) Must show that his infirmity was not caused by his own misconduct, neglect or carelessness.

(d) If a woman, must not have married since her last employment in recorded service.

If the conditions set forth above are satisfied, then an annual retiring allowance will be granted on the following scale:

(a) If the teacher is a man, £20 for ten years of recorded service and £1 additional for each year above ten.

(b) If a woman, £15 for ten years of recorded service and an additional sum of 13s. 4d. for every year above ten.

It will thus be seen that a man who serves twenty years and is disabled would draw an annuity of £30 for the rest of his life, and a woman with the same service an annuity of £21 13s. 4d.

Under no circumstances, however, can a teacher draw a Disablement Allowance in excess of the total which he might obtain under Deferred Annuity and Superannuation Allowance had he served until the age of sixty-five years.

It is further to be noted that recipients of the Disablement Allowance must show every three years that they are still entitled to the allowance, and that any teacher who becomes a claimant upon this fund forfeits all claim to Deferred Annuity Allowance and to Superannuation Allowance, even should he live to the age of sixty-five years.

The Act as explained above applies to every teacher certificated after 1898. Those certificated previous to that date have the option of accepting the Act and paying arrears. If, however, they once accept in writing, then such acceptance is binding and they are on precisely the same footing as teachers certificated after 1898.

The Treasury Board have the power to increase the annual tax upon teachers' salaries, and they may increase the grant to teachers if the funds warrant such increases.

By consulting the annexed table for the Deferred Annuity Fund and adding to the amount payable under it, the Superannuation Allowance, it will be seen that a male teacher might draw at sixty-five years of age a pension of nearly £100. If he teaches but ten years and breaks down he is sure of the Disablement Allowance of £20.

It will be noted that the British Act applies only to elementary schools. The reason of this is obvious when we remember that no fixed annual grants are made by the Imperial Parliament for either secondary schools or universities.

Teachers in Scotland who accept the Act forfeit all claim to a pension under section 61 of the Scotch Act of 1872.

Teachers' contributions are to support the Deferred Annuity Fund, while Superannuation and Disablement Allowances are really State aid.

TABLE SHOWING THE AMOUNTS PAYABLE TO TEACHERS UNDER  
THE BRITISH DEFERRED ANNUITY ACT.

Age at which contribution began.	Amount payable to a man for each contribution of £3.			Amount payable to a woman for each contribution of £2.			Age at which contribution began.	Amount payable to a man for each contribution of £3.			Amount payable to a woman for each contribution of £2.		
	£	s.	d.	s.	d.			s.	d.		s.	d.	
20	1	13	8	15	9	43	15	8		8	0		
21	1	12	9	15	4	44	15	1		7	9		
22	1	11	9	14	11	45	14	6		7	7		
23	1	10	10	14	6	46	13	11		7	4		
24	1	9	11	14	1	47	13	5		7	1		
25	1	9	0	13	9	48	12	10		6	10		
26	1	8	1	13	4	49	12	4		6	7		
27	1	7	3	13	0	50	11	10		6	5		
28	1	6	5	12	7	51	11	4		6	2		
29	1	5	7	12	3	52	10	10		6	0		
30	1	4	9	11	11	53	10	5		5	9		
31	1	3	11	11	7	54	9	11		5	7		
32	1	3	2	11	3	55	9	6		5	4		
33	1	2	5	10	11	56	9	1		5	2		
34	1	1	8	10	7	57	8	8		4	11		
35	1	0	11	10	3	58	8	3		4	9		
36	1	0	3	10	0	59	7	10		4	7		
37	19	6		9	8	60	7	6		4	4		
38	18	10		9	5	61	7	2		4	2		
39	18	2		9	1	62	6	9		4	0		
40	17	6		8	10	63	6	5		3	10		
41	16	11		8	7	64	6	1		3	7		
42	16	3		8	4								

## UNITED STATES.

Education in the American Republic being under local control we would expect to find as much diversity in the nature of benefit and pension systems as in the schools and teachers themselves. And truly this expectation is not disappointed. American teachers have sick and funeral benefit societies, retirement benefit societies, annuity societies, city pension funds, voluntary and compulsory. Some States have enacted fixed pension laws for teachers. The point of most interest is, that the American teachers are thoroughly alive to the importance of retiring allowances, and every year marks a step in advance.

So far there is very little if any State contribution toward teachers' pension funds, so that State pensions, as they exist in Europe, are almost unknown in the United States. There are several obvious reasons for this. The following suggest themselves as most prominent:

(a) American schools are more under local control than European, and consequently more difficult to bring under any general law.

(b) Women form more than 90 per cent. of American teachers, and they are naturally less interested in pensions than men.

(c) American teachers, even the males, do not view teaching as a permanent work in the same sense that European teachers do.

(d) American teachers, both while teaching and after retirement, have many opportunities to invest money or engage in business that would be impossible for the teachers in Europe.

TABLE I.—MUTUAL BENEFIT ASSOCIATIONS FOR TEMPORARY AID ONLY (1895).

NAME.	Incor- porated.	DUES.			BENEFITS.		Mem- bers.
		Initia- tion.	Annual.	Special.	Sickness.	Death.	
Beneficial Association Teachers of Baltimore .....	1878	\$1 00	\$3 00	\$1 10	{ \$1 a day for 20 days .... 75c. a day for next 20 days 50c. a day for next 40 days }	{ Funeral exp .... }	....
Teachers' Mutual Aid Association of St. Louis .....	1878	2 00	2 00	1 00	{ \$5 a week .....	Funeral expenses ....	....
German Teachers' Relief Association of Cincinnati.	1879	1 00	1 00 salary.	...	{ Maximum, \$100 a year }	\$100 funeral exp. ....	....
Cleveland Teachers' Mutual Aid Association .....	1879	....	10c. per week	....	Maximum, \$10 a week ....	Funeral expenses	577
Teachers' Mutual Aid Association of Detroit .....	1888	1 00	\$2 00	....	{ \$5 a week. .... }	.....	275
Chicago Teachers' Relief Society .....	1891	2 00	2 00	...	{ Maximum, \$100 a year }	.....	....
Women Teachers' Mutual Benefit of Buffalo .....	1892	....	1 00	1 00	{ \$1 a day .....	.....	240
Taylor Memorial Aid of St. Paul .....	1890	....	1 00	....	{ Maximum, \$30 a year. Pays a total disability claim in lump sum... }	.....	....
					{ \$5 a week for six weeks ... }	.....	....

TABLE II.—MUTUAL BENEFIT ASSOCIATIONS FOR ANNUITY OR RETIREMENT FUND ONLY (1895).

NAME.	Incorporated.	DUES.		ANNUITY.		MINIMUM SERVICE.		Annuitants.	Members.	FUNDS.	
		Initia- tion.	Annual.	Minimum.	Maximum.	With dis- ability.	Without disability.			An- nuity.	Perma- nent.
Teachers' Mutual Benefit Asso- ciation of New York City ..	1885	....	1% of salary	....	....	5 yrs.	35 yrs.	93	2076	\$22,232	\$134,099
Teachers' Annuity Guild of Massachusetts .....	1893	....	1% of salary	....	( 60% of salary up to \$600 )	3 yrs.	35 yrs.	..	1280	4,000	42,500
Boston Teachers' Mutual Benefit .....	1889	\$3.00	1% of salary	60% of salary	\$600	2 yrs.	35 yrs.	49	933	16,411	132,207
Teachers' Mutual Benefit of Baltimore .....	1896	\$5.00	1½% of salary	60% of salary	\$600	5 yrs.	( 40 yrs. males, 35 yrs. females )	..	691	....	19,497

TABLE III.—MUTUAL BENEFIT ASSOCIATIONS FOR BOTH TEMPORARY AID AND ANNUITY (1895).

NAME.	Incorporated.	DUES.		ANNUITY.		Temporary Aid.	MINIMUM SERVICE.		Members.	FUNDS.	
		Initia- tion.	Annual.	Minimum.	Maximum.		With Disability.	Without Disability.		Annuity.	Perma- nent.
Teachers' Annuity Aid Association, Hamilton County, Ohio. ....	1890	\$5 00	\$10 00	.....	{ \$500 plus \$50 for funeral }	{ Same rate as for annuity }	5 years	{ 40 years males 35 years females }	300	\$1,812	\$38,958
Teachers' Annuity Aid Association of Philadelphia. ....	1890	5 00	{ 2% of salary up to \$40 }	{ 60% of salary }	{ \$600 plus \$100 for funeral }	{ Same rate as for annuity }	3 years	Same	886	13,662	176,000
Brooklyn Teachers' Aid Association. . .	..	{ 1 00 to 10 00 }	{ 4% of salary }	{ \$5 a week }	\$8 a week	\$5 to \$6 a week	.....	.....	4	1,067	79,500
Teachers' Annuity and Aid Associa- tion of the Dis- trict of Columbia, incl'g Washington	1894	{ 1 00 to 3 00 }	{ 1 1/2% of salary }	{ 3% of salary }	\$600 00	{ \$1 a day up to \$50 a year }	5 years	35 years	1	2,500	59,000

TABLE IV.—PENSION OR RETIREMENT FUND AUTHORIZED BY STATE LEGISLATURE (1896).

STATE.	APPLIES TO	Ap- proved.	Dues paid by teachers.	ANNUITY.		MINIMUM SERVICE.		Membership compulsory.
				Minimum.	Maxi- mum.	With disability.	Without disability.	
Missouri.....	Cities of 300,000 or over (now only St. Louis).....	1895	1 of salary	Half salary	\$800	....	(30 yrs. males (25 yrs. females	No
California.....	Entire State.....	1895	.....	\$540	600	20 yrs.	.....	No
New York.....	Brooklyn.....	1895	1 of salary	Half salary	1200	....	30 yrs.	Yes
Michigan.....	Detroit.....	1895	.....	Half salary	400	....	25 yrs.	Yes
Illinois.....	Cities of 100,000 or over (now only Chicago).....	1895	1 of salary	Half salary	600	....	(25 yrs. males (20 yrs. females	Yes
New York.....	New York City.....	1895	.....	Half salary	1000	35 yrs.	.....	Yes
New Jersey.....	Entire State.....	1896	1 of salary	\$270	600	20 yrs.	.....	No
Ohio.....	Cincinnati.....	1896	1 of salary	Half salary	600	20 yrs.	(35 yrs. males (30 yrs. females	Yes
New York.....	Buffalo.....	1896	1 of salary	Half salary	600	....	(30 yrs. males (25 yrs. females	Yes
South Carolina.....	*Charleston.....	1898	.....	.....	250	20 yrs.	25 yrs.	Yes

\* Charleston is one example of a pension system in the United States supported directly by State aid, or rather by municipal aid.

## NEWFOUNDLAND.

The teachers' pension law for Newfoundland will be found in Art. 59 of Chap. 31 of 59 Vic., 1895. It is supported by a fund made up of annual appropriations by the Legislature and certain amounts withheld from grants to teachers. So successful is the plan that the educational authorities estimate that with their present revenues they will be able to increase the pensions in ten years by 40 to 50 per cent. They are certainly small enough to stand that increase.

The chief conditions as to pension fund are:

I. Male teachers get \$100 per annum and female teachers \$80 per annum when they reach sixty years.

II. In case a contributor die before he reach sixty years his heirs shall receive the total amount of his contributions with compound interest at 6 per cent.

III. If a teacher has taught twenty years and then enters some other business, he may, if he choose, keep up his payments and draw a pension at sixty years.

IV. A contributor who teaches at least five years and retires from the profession may withdraw his contributions with compound interest at 3 per cent.

V. No teacher shall be allowed to become a contributor after he reaches forty years.

VI. Teachers who are members of any religious order may or may not contribute to the pension fund.

## PROVINCE OF QUEBEC.

I think I am correct in stating that Quebec is the only Canadian Province that has a pension fund for teachers. It was established just a few years before the Ontario pension fund was abolished, and has been in operation now for twenty-one years. The full text of the Quebec Act on teachers' pensions may be found in Art. 493 of 62 Victoria, Chap. 28 of the Statutes of Quebec, but the following will give a fair idea of the principle:

All teachers, except college professors and clerical or religious communities, who teach must pay 2 per cent. of their salaries. This constitutes a fund administered by the Government, and its revenues have been found adequate to meet the demands of those legally entitled to pensions.



A teacher must have taught twenty years to have a right to claim a pension. If he has taught more than ten and less than twenty years he may withdraw all he has put in if he ceases to teach because of ill-health. A teacher, however, has not a right to a pension after twenty years' service unless he can prove by medical certificates that his health is such as to unfit him for his duties. This proof must be given from year to year so long as he draws a pension or is unable to teach.

At fifty-six years of age a teacher who has taught at least twenty years may draw a pension even if his health be good.

A pensioner gets 2 per cent. of his average salary multiplied by the number of his years of service, but in no case can he get more than 70 per cent. of average salary, and the maximum pension is fixed at \$805.

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# LIST OF MEMBERS

## OF THE

# ONTARIO EDUCATIONAL ASSOCIATION

### 1902-1903.

---

Abraham, Miss May, Chatham.  
 Adams, Wm. A., Avonton.  
 Addison, Miss M. E. T., Lindsay.  
 Aldridge, Miss E. J., Peterboro'.  
 Alexander, Miss H. B., Elora.  
 Alexander, W. J., Toronto.  
 Alexander, Robert, Galt.  
 Allen, Miss Lizzie D., Kingston.  
 Allen, Thomas, Durham.  
 Amoss, Miss Mildred, Zephyr.  
 Amy, J. M., Drayton.  
 Anderson, John, Arthur.  
 Anderson, John E., Cookstown.  
 Anning, Miss M. J., Belleville.  
 Anning, Miss Edith A., Belleville.  
 Ardagh, J. A., Barrie.  
 Armour, Miss A. A., Almonte.  
 Auld, Charles, Strathroy.  
 Austin, Miss Mary, Lynn Valley.  
 Austin, O. D., Orono.  
 Ayers, Miss S., Berlin.  
 Aylesworth, Geo. A., Newburgh.

Baker, L. F., Hillsdale.  
 Baker, R. A., Aultsville.  
 Baker, S., London.  
 Baldwin, Lawrence, Toronto.  
 Bale, G. S., Kincardine.  
 Ball, G. S., Kincardine.  
 Ballard, W. H., Hamilton.  
 Balmer, Miss E. M., Toronto.  
 Barclay, Miss N. V., Lindsay.  
 Barker, Miss J. J., Collingwood.  
 Barr, Miss J., Seaford.  
 Barnes, C. H., Arkona.  
 Barnes, C. A., London.  
 Bassingthwaite, J., Sault Ste. Marie.  
 Bawden, S., Kingston.  
 Becket, Miss E., Peterboro'.  
 Bedford, C. J., Brantford.  
 Beech, W. K., Wellington.  
 Belanger, A., Ottawa.  
 Bell, Miss G., Alliston.  
 Bell, Miss L., Alliston.  
 Bell, Miss W., Alliston.

Bell, Miss N., Alliston.  
 Bell, W. N., Paris.  
 Bell, J. J., Petrolea.  
 Bennett, F. G., Ottawa.  
 Benson, T. E., Markdale.  
 Bernath, A. C., Huntsville.  
 Berry, Miss Rachael, Hamilton.  
 Birchard, A. F., Cornwall.  
 Birehard I. J., Toronto.  
 Black, J. S., Toronto.  
 Black, H. H., Whitby.  
 Black, H., Blenheim.  
 Black, N. F., Lindsay.  
 Blanchard, J. E., North Augusta.  
 Blezard, Miss L., Westwood.  
 Bolster, Miss May L., Cobourg.  
 Boyd, Miss Annie, Kingston.  
 Brackin, James, Chatham.  
 Brackin, Mrs. S., Chatham.  
 Bradburn, Miss Helen, London.  
 Bray, R. V., Chatham.  
 Breckon, Watson, Watdown.  
 Brethour, J. H., Mount Forest.  
 Briden, W., Ingersoll.  
 Brook, R., Woodham.  
 Brown, William, Motherwell.  
 Brown, D. A., Bradford.  
 Brown, J. Coyle, Peterboro'.  
 Brown, J. J., Tilsonburg.  
 Brown, James R., Owen Sound.  
 Brown, George, Meaford.  
 Brown, Alfred, Paris.  
 Brown, S. W., Dunnville.  
 Bruce, E. W., Toronto.  
 Brunton, T. H., Newmarket.  
 Buchanan, Miss Margaret, Ingersoll.  
 Buck, G. S., Lindsay.  
 Bunnell, Miss E. M., Brantford.  
 Burchill, A. M., Vankleek Hill.  
 Burgess, H. H., Owen Sound.  
 Burritt, F. G., Ottawa.  
 Burritt, James H., Pembroke.  
 Burrows, Fred., Napanee.  
 Bursnall, Miss J., Paris.  
 Burt, A. W., Brantford.

Burwash, N., Toronto.

Cameron, Miss L. J., Port Elgin.  
 Cameron, A. K., Galt.  
 Cameron, J. Home, Toronto.  
 Cameron, M. D., Weidman.  
 Campbell, P. S., Toronto.  
 Campbell, N. W., Durham.  
 Carruthers, A., Toronto.  
 Carscadden, Thomas, Galt.  
 Carstairs, J. S., Toronto.  
 Carter, Miss J. A., Galt.  
 Carter, Mrs. J., Elora.  
 Carter, Miss L. M., Picton.  
 Casselman, A. C., Toronto.  
 Chant, C. H., Newburg.  
 Chapman, W. F., Toronto.  
 Charles, Miss H., Toronto Junction.  
 Chase, G. A., Toronto.  
 Chenay, David, Windsor.  
 Cheyne, Miss M., Woodstock.  
 Chisholm, James, Hamilton.  
 Clapp, D. A., Harriston.  
 Clapp, Miss Florence, Mount Forest.  
 Clarke, F. H., Orangeville.  
 Clark, F. B., Ameliasburg.  
 Clark, Mrs. M. N., Meaford.  
 Clark, Malcolm N., Meaford.  
 Clayton, Geo. A., Marden.  
 Clendenning, W. S., Walkerton.  
 Cloney, S. L., St. Catharines.  
 Coates, Robert, Milton.  
 Code, Miss Phoebe, Trowbridge.  
 Colbeck, F. C., Toronto Junction.  
 Collins, H. A., Chatham.  
 Colling, J., Lindsay.  
 Colles, W. H. G., Chatham.  
 Connolly, John, Brockville.  
 Conley, George, Kemptville.  
 Cook, William A., Thorold.  
 Coombs, Fred E., Bradford.  
 Coombs, E., Newmarket.  
 Colling, G. F., Seaforth.  
 Cork, G., Waterloo.  
 Corley, Miss A., Meaford.  
 Corley, Mrs. Norma, Meaford.  
 Corrigan, James, Elmira.  
 Coutts, R. D., Georgetown.  
 Cowley, R. H., Ottawa.  
 Cowles, J. P., Lefroy.  
 Craig, Miss Lucy, Belleville.  
 Craig, J. J., Fergus.  
 Craig, T. A., Kemptville.  
 Crassweller, C. S., Essex.  
 Crawford, H. J., Toronto.  
 Crawford, John, Niagara Falls.  
 Crawford, J. T., Hamilton.  
 Crawford, Mrs. J. T., Hamilton.  
 Crosby, I. H., Sault Ste. Marie.  
 Cumming, Mrs. W. W., Campbellford.  
 Curry, Miss Emma J., Belleville.  
 Curtis, J. T., Dorking.  
 Currie, Miss Louise N., Toronto.  
 Curzon, Edith M., Toronto.

Dale, Geo. W., Brinsley.  
 Dales, J. N., Kingston.  
 Dandy, W. P., Morrisburg.  
 Davidson, A. E., Boston Mills.  
 Davidson, Miss J. E., Elora.  
 Davison, J., Guelph.  
 Davy, Miss A. F., Iroquois.  
 Dawson, Miss Ethel, Peterboro'.  
 Deacon, George, Toronto.  
 Deacon, J. S., Milton.  
 Deacon, James, Lindsay.  
 Dearness, John, London.  
 DeGuerre, A., Galt.  
 Dempsey, Helena, Albury.  
 Dent, Miss Lilian M., Toronto.  
 Dewar, Miss Maggie, Kertch.  
 Dewar, Miss Lizzie A., Kertch.  
 Dickson, George, Toronto.  
 Dickson, J. D., Niagara Falls.  
 Dickinson, J. A., London.  
 Dingle, Miss Grace K., Meaford.  
 Dixon, W. F., Caledon East.  
 Doan, R. W., Toronto.  
 Dobbie, Miss M. I., Niagara Falls.  
 Dobbie, John A., Ottawa.  
 Dobbie, Miss I. E., Guelph.  
 Dobbie, Miss J. G., Guelph.  
 Dodds, James T., Seaforth.  
 Dodds, Mrs. J. T., Seaforth.  
 Doherty, M. W., Guelph.  
 Doidge, T. C., Orillia.  
 Douglas, G. H., Stratford.  
 Douglas, W., Owen Sound.  
 Down, Miss Jennie, Minden.  
 Downes, Miss L. A., Hamilton.  
 Driscoll, Miss Dora, Brimston's Corners.  
 Dundas, A. A., Meaford.  
 Duff, Miss Emma, Toronto.  
 Dyde, S., Kingston.

Earney, T. R., Georgetown.  
 Edwards, Miss C. B., London.  
 Eldon, R. H., Toronto.  
 Elliott, R. G., Toronto.  
 Elliott, John, Leamington.  
 Elliott, W., Mitchell.  
 Elliott, T. E., Toronto.  
 Elliott, J. G., Kingston.  
 Ellis, W. S., Kingston.  
 Embree, L. E., Toronto.  
 Evans, J. A., Avonton.  
 Evans, J. J., Toronto.  
 Evans, W. A., Lakefield.

Fairbairn, J. B., Bowmanville.  
 Farewell, J. E., Whitby.  
 Feasby, W. J., Washago.  
 Ferguson, W. C., London.  
 Ferguson, Miss E. A., London.  
 Fee, Miss A. P., Chesley.  
 Fleming, E. C., Niagara Falls.  
 Fleming, Miss Beatrice, London.  
 Fleming, C. A., Owen Sound.  
 Flumerfelt, W. M., Claremont.

Follis, Marvin, Sturton.  
 Follick, T. H., St. Mary's.  
 Ford, Miss Jennie, Petrolea.  
 Forham, J. W., Newmarket.  
 Forsyth, D., Berlin.  
 Foster, Miss Jessie, Welland.  
 Foster, W. E., Barrie.  
 Fotheringham, D., Toronto.  
 Fraser, W. H., Toronto.  
 Fraser, Charles G., Toronto.  
 Frayn, Miss A. S., Forest.  
 Freeman, Mrs. J. A., Waterdown.  
 Freeman, J. A., Waterdown.  
 Frost, F. H., Bowmanville.  
 Galbraith, W. J., Brampton.  
 Galbraith, D. G., Appin.  
 Garvin, J. W., Peterboro'.  
 Gibson, Miss R. M., Paisley.  
 Giltfillan, James, Bowmanville.  
 Giffin, J. A., St. Catharines.  
 Gillis, Miss B., Elmwood.  
 Glaspell, H. A., New Hamburg.  
 Glashan, J. C., Ottawa.  
 Godfrey, E. Y., Meaford.  
 Godwin, W. H., Kingston.  
 Gordon, N., Orangeville.  
 Gordon, Miss E. A., Caledonia.  
 Gourlay, R. S., Toronto Junction.  
 Gould, W. W., Wooler.  
 Gould, L. T., Campbellford.  
 Gowenlock, W. M., London.  
 Goodwin, G. W., Sault Ste. Marie.  
 Graham, A. W., St. Thomas.  
 Graham, Dougall, Bothwell.  
 Graves, Miss Eliza, Meaford.  
 Gray, R. A., Toronto.  
 Gray, Henry, Toronto.  
 Greey, Miss L., Hamilton.  
 Groves, W. E., Toronto.  
 Hagarty, E. W., Toronto.  
 Halstead, Miss Edith, Mount Forest.  
 Halstead, Miss Mabel, Mount Forest.  
 Hall, Merton E., Brantford.  
 Hanna, W. E., Waverley.  
 Hanaboe, Miss H., Lindsay.  
 Hamilton, J. R., Brantford.  
 Hare, J. J., Whitby.  
 Hardie, Miss A. M., Ottawa.  
 Hardie, W., Perth.  
 Hardy, E. A., Lindsay.  
 Harman, R. P., Uxbridge.  
 Harold, Miss Addie, Belleville.  
 Harrington, J. T., Markham.  
 Harper, P. H., Toronto.  
 Harper, J. A., Guelph.  
 Harrop, L. F., Niagara Falls.  
 Hart, Mrs. Ruth, Meaford.  
 Hart, E., Brantford.  
 Headley, R. H., Cayuga.  
 Heakes, Miss, Toronto.  
 Hendrie, Miss Carrie, London.  
 Henderson, J., St. Catharines.  
 Hendry, J. W., Toronto.

Henry, E. G., Drayton.  
 Henry, E. G., Drayton.  
 Henry, Miss Lizzie C., Guelph.  
 Hicks, O. S., Bayside.  
 Hill, R. J., Bradford.  
 Hill, E. L., Guelph.  
 Hill, Miss M. A., Elora.  
 Hill, J. A., Toronto.  
 Hillman, Miss Ida, Chatham.  
 Hiscock, Miss Eleanor, Kingston.  
 Hoag, J. P., Brantford.  
 Hogarth, E. S., Hamilton.  
 Hogarth, G. H., Whitby.  
 Holman, George W., Bayfield.  
 Houston, William, Toronto.  
 Houston, J. A., Smith's Falls.  
 Hubbard, J. J., Orangeville.  
 Hughes, Mrs. James L., Toronto.  
 Hughes, T. J., Toronto.

Inglis, Miss M. E., Goderich.  
 Innes, A. R., Port Elgin.  
 Ireland, F. N., St. Catharines.  
 Ireland, W. W., St. Catharines.  
 Irvine, R. G., Uxbridge.  
 Irwin, W., Stratford.

Jamieson, J. S., Morrisburg.  
 Jamieson, Mrs. J. S., Morrisburg.  
 Jeffries, John, Peterboro'.  
 Jermyn, P. T., Warton.  
 Jewett, A. E., Chatham.  
 Johnson, R. W., St. Thomas.  
 Johnston, John, Belleville.  
 Johnston, Miss Grace, Berlin.  
 Johnston, William, Athens.  
 Johnston, G. W., Toronto.  
 Jones, G. M., Hagersville.  
 Jones, Miss L. L., Cobourg.  
 Jones, Miss E. W., Kingston.  
 Jordan, A. A., Prescott.  
 Jupp, R. H., Orillia.

Kaine, J. M., Sault Ste. Marie.  
 Karr, W. J., Sarnia.  
 Keddie, Miss E. L., Oshawa.  
 Keddie, Miss H. M., Oshawa.  
 Keith, A. W., Leamington.  
 Keith, G. W., Mount Forest.  
 Kelley, C. E., Stony Creek.  
 Kelly, C. W., Guelph.  
 Kelso, Miss A., London.  
 Kennedy, Geo. E., Stirling.  
 Kennedy, T., Thorold.  
 Kenner, H. R. H., Peterboro'.  
 Kerr, Miss Sara, Peterboro'.  
 Kerr, C. S., Woodstock.  
 Kerr, James E., Galt.  
 Killoran, Miss Annie, Windsor.  
 Kilmer, E. E. C., Alymer.  
 Kilpatrick, Miss N. M., Kingston.  
 King, Miss Annie, Brussels.  
 Kingston, Miss J., Prescott.  
 Kingston, Miss Maggie, Florence.  
 Kirk, Wm. F., Micksburg.

Kirkland, W. S., Morrisburg.  
 Kirkwood, W., St. Catharines.  
 Kittridge, Miss Bella, Cobourg.  
 Klippert, Miss K., Batteau.  
 Klippert, Miss S., Batteau.  
 Knight, J. H., Lindsay.  
 Knox, J. D., Orillia.  
 Laidlaw, Miss Jean R., London.  
 Lampman, Miss Carrie, Thorold.  
 Langford, T. E., Shelburne.  
 Langford, A. L., Toronto.  
 Lang, A. E., Toronto.  
 Lane, J. S., Chatham.  
 Langwell, Miss E., Chatham.  
 Latta, S. J., London.  
 Lazier, S. F., Hamilton.  
 Legate, Miss Mary F., London.  
 Legatt, Miss A., London.  
 Leitch, John A., Brantford.  
 Lennox, T. H., Stratford.  
 Levan, I. M., Woodstock.  
 Lewis, Miss J. M., Port Rowan.  
 Lees, Richard, St. Thomas.  
 Libby, Miss M. F., Parkhill.  
 Liddy, W. R., Port Dover.  
 Linton, William, Galt.  
 Lipsitt, J. H., Tara.  
 Logan, W. M., Hamilton.  
 Lough, W. R., Clinton.  
 Lynd, L. E., Dunkerron.  
 Lyon, Miss Mande, Ottawa.  
 Lyon, Miss Mary C., Ottawa.  
 Luke, Miss M. E., Oshawa.  
 Macdonald, D. Bruce, Toronto.  
 MacDougall, G., Kemptville.  
 MacKenzie, Miss A. C., Durham.  
 MacKenzie, Miss Agnes E., London.  
 MacKay, Ed. W., ———.  
 MacMillan, J. W., Lindsay.  
 Macpherson, F. F., Hamilton.  
 McAllister, S., Toronto.  
 McBride, D., Port Perry.  
 McBridgman, Miss C., Smithville.  
 McCabe, J. A., Ottawa.  
 McCarroll, Thomas, Meaford.  
 McCarty, Thomas, Sault Ste. Marie.  
 McCool, John, London.  
 McCuaig, H. M., Welland.  
 McCutcheon, F. W. C., London.  
 McDougall, N., Park Hill.  
 McEwen, James E., Midland.  
 McEwan, W. B., Martintown.  
 McGillivray, Mrs. Neil, Port Elgin.  
 McGroy, Miss Genevieve, Tottenham.  
 McIntosh, Angus, Toronto.  
 McIntyre, John, Kingston.  
 McKee, A., Midland.  
 McKee, Geo., Orillia.  
 McKee, Thomas, Barrie.  
 McKellar, Miss Annie, Chatham.  
 McKellar, Miss Maggie, Chatham.  
 McKelvey, A. E., Mount Forest.  
 McKenna, Miss Theresa, Woodstock.

McKenzie, Prof. M., Toronto.  
 McKim, W. A., Perth.  
 McKinley, Charles, Georgetown.  
 McKinnon, G. F., Smith's Falls.  
 McKnight, Robert, Owen Sound.  
 McLaggan, Miss Mary, Chesley.  
 McLaren, John, Orangeville.  
 McLaren, W. C., Guelph.  
 McLauchlan, James, Owen Sound.  
 McLean, Miss Christine, Hanover.  
 McLennan, M. A. L., Tilsonburg.  
 McLeod, Miss G., Priceville.  
 McMillan, A., Toronto.  
 McMillan, Miss N. G., Ottawa.  
 McNaughton, A. W., Cornwall.  
 McNiece, James, Welland.  
 McPhail, Miss A. C., Almonte.  
 McPherson, A., Hamilton.  
 McPherson, G. G., Stratford.  
 McQueen, Robert, Kirkwall.  
 Mallory, Miss Bertha, Picton.  
 Martin, Miss Nellie, Cheapside.  
 Martin, Miss Alice, Cheapside.  
 Martin, S., St. Mary's.  
 Marty, Miss A. E., St. Thomas.  
 Marty, Miss S. E., Stratford.  
 Massey, W. D., Colborne.  
 Matchell, W. D., Peterboro'.  
 Meighen, Charles, Perth.  
 Meiklejohn, A. J., Dundas.  
 Merchant, F. W., London.  
 Metcalf, W. H., Ridgeway.  
 Middlemiss, Miss M., Brantford.  
 Might, L., Cobourg.  
 Millar, Miss Janet T., Pembroke.  
 Millar, Miss Nellie R., Pembroke.  
 Millar, Miss Ellenor, Pembroke.  
 Millar, Miss W. G., Pembroke.  
 Mills, G. K., Collingwood.  
 Mills, Miss J. G., London.  
 Mitchell, Miss A., Hagarsville.  
 Moffatt, W. J., Seaforth.  
 Moffatt, J. H., Ottawa.  
 Morgan, S. A., Hamilton.  
 Morgan, J. C., Barrie.  
 Moore, W. F., Dundas.  
 Morrison, W., St. Mary's.  
 Morrison, W. G., Toronto.  
 Morrison, H., Toronto.  
 Morrow, J. D., Glencoe.  
 Morton, W. C., Hamilton.  
 Moshier, D. D., Sarnia.  
 Muir, John, Grimsby.  
 Murton, L. K., Oshawa.  
 Murdock, Miss Sara, London Junction.  
 Murray, T., Owen Sound.  
 Murray, R. W., Toronto.  
 Murphy, M., Caldwell.  
 Myer, A. N., Beamsville.

Nairn, David, Galt.  
 Nash, Miss Sophie, St. Thomas.  
 Neilson, J., Windsor.  
 Needler, G. H., Toronto.  
 Nichol, Miss Florence, Wilton Grove.

Nichols, Miss B. H., Harriston.  
 Nicholls, Miss M. A., Peterboro'.  
 Nicol, Miss M. A., Napanee.  
 Northcott, Miss M. A., Belleville.  
 Norris, Miss Vietta, Kingston.  
 Norris, James, Kincardine.  
 Nutting, M. L., Uxbridge.

O'Brien, Michael, Peterboro'.  
 O'Connor, F. J., Long Point, Co. Leeds.  
 Odell, Albert, Cobourg.  
 Owen, Miss Edith, Campbellford.

Park, R., Chatham.  
 Parks, I., Cayuga.  
 Parry, John, Dunnville.  
 Passmore, S. F., Brantford.  
 Paterson, Joseph, Moortfield.  
 Patterson, William, Moffatt.  
 Patullo, Geo. R., Woodstock.  
 Pearce, J. H., Orillia.  
 Perry, G. W., Kincardine.  
 Phillips, Miss Ida, London.  
 Phoenix, Miss Laura, London.  
 Pottinger, Miss S. V., Sarnia.  
 Powell, G. K., Toronto.  
 Pratt, Thomas A., Bradford.  
 Prendergast, William, Toronto.  
 Pugsley, E., Port Rowan.

Race, C. E., Cobourg.  
 Radcliffe, S. J., London.  
 Radcliffe, Mrs. S. J., London.  
 Rand, W. E., Clinton.  
 Readman, Miss, Toronto.  
 Redden, G. W., Amprior.  
 Redmond, Miss Jessie, Picton.  
 Reid, Miss Mary M., Brisbane.  
 Reuter, Miss Emma, Salem.  
 Reynolds, Miss B. H., Wingham.  
 Richardson, Walter, Smithdale.  
 Rigby, Rev. Oswald, Toronto.  
 Ritchie, Miss Bessie, Burk's Falls.  
 Ritchie, Geo. M., Toronto.  
 Robb, D., Brussels.  
 Robertson, A. D., Everton.  
 Robertson, Miss Annie, London.  
 Robertson, Miss Emma, Perth.  
 Robertson, Miss Mary, Carlow.  
 Robertson, Miss Enid, Perth.  
 Robertson, H. S., Stratford.  
 Robertson, J. C., Toronto.  
 Robertson, W. J., St. Catharines.  
 Robertson, D., Warkworth.  
 Robinson, S. B. F., Markham.  
 Robinson, Miss Hattie, St. Thomas.  
 Robinson, Miss Mabel, Kingston.  
 Robson, Miss Mary, Colborne.  
 Rochon, J. T., Clarence Creek.  
 Rogers, G. F., Seaforth.  
 Rogers, J. C., Hawkesbury.  
 Rogers, Mrs. J. C., Hawkesbury.  
 Rogers, Richard B., Peterboro'.  
 Rose, R. C., Prescott.  
 Rose, Mrs. R. C., Prescott.

Ross, Miss I. M., Brockville.  
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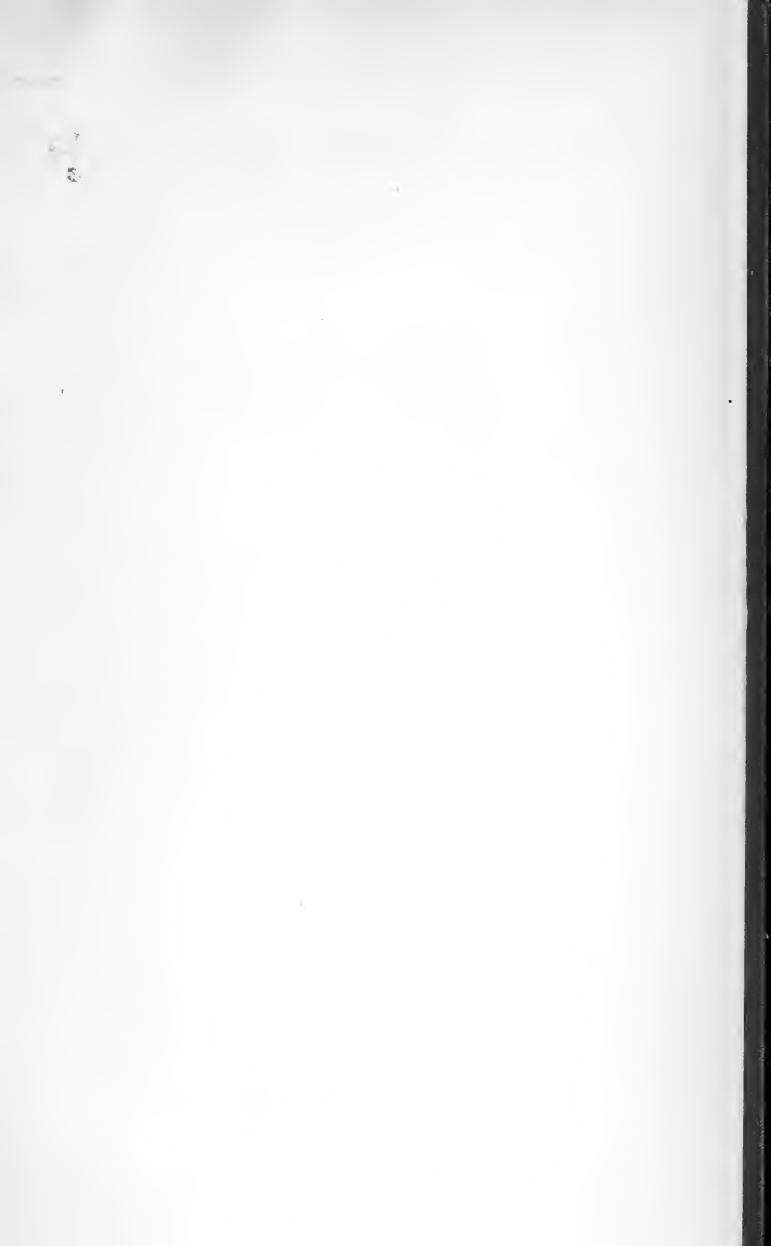
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